CLINICAL DECISIONS OF MUSIC THERAPISTS IN THE TREATMENT OF

INDIVIDUALS WITH EATING DISORDERS

By

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Abstract

The purpose of this study was to determine common treatment goals and subsequent music-based interventions used by music therapists who work/worked with patients with eating disorders and to begin gathering information on the intentional adaptation of the elements of music commonly used to increase success of these treatment outcomes. Further, the intent of this survey was to provide a synthesis and overview of current clinical practice and wisdom useful to students and clinical music therapists interested in working with this population or those interested in conducting intervention-based research to determine the impact of music-based interventions on the needs of individuals with eating disorders. Emails were obtained from the American Music Therapy Association (AMTA) for music therapists working in private practice, general hospitals, psychiatric hospitals, mental health facilities, and eating disorder recovery centers. Results of the survey found that majority of participants did not work full time with people with eating disorders and indicated that 1-5% of their caseload was dedicated to people with eating disorders. The top two goal areas and associated interventions were emotional expression using improvisational instrument play and songwriting interventions and decreasing anxiety using relaxation/imagery interventions. The top chosen musical elements to adapt were lyrics and rhythm adapted in the context of improving verbal and non-verbal expression. Further findings and implications are discussed.

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Chapter 1

Introduction

Researchers estimate that 0.4% of the population has anorexia nervosa and up to 1.5% of the population has bulimia nervosa at any point in the past twelve months (American Psychiatric Association, 2013) yet there is little understanding about exactly what causes a person to develop anorexia or bulimia. A person can develop an eating disorder as early as pre-adolescence and can continue to be plagued far into adulthood. Researchers have found that those with eating disorders often share a desire for perfection (Cooper & Fairburn, 2011) and it is suggested that this desire to be perfect can contribute to an altered view of one's body image that can cause individuals to create strict dietary requirements to reach perfection. A common misconception is that all people with eating disorders are underweight. Actually, many people who struggle with bulimia nervosa are often in a healthy weight range (Yates & Sambrailo, 1984).

People struggling with an eating disorder experience both physical and psychological consequences and have one of the highest mortality rates of all psychological disorders (Arcelus, Mitchell, Wales, & Nielsen, 2011). Physical side effects range from an irregular heartbeat to a ruptured esophagus (Fairburn & Harrison, 2003; Jones, Schelhase, Morgan, 2012). Irregular heartbeats and possible heart failure are often seen in those who struggle with anorexia nervosa, as well as amenorrhea (i.e., loss of menstruation) in women (Fairburn & Harrison, 2003; Jones et al., 2012). When people with anorexia nervosa become severely underweight and malnourished, they can also experience hair loss, dulling of the skin, and the appearance of extra-fine hair that covers the body (i.e., lanugo). This extra-fine hair develops as the body's way to combat the lack of fat used to regulate a person's body temperature (Fairburn & Harrison, 2003; Jones et al., 2012).

People struggling with bulimia nervosa use binging and purging as a way to regulate their weight and are often within average weight ranges (American Psychiatric Association, 2013; Fairburn & Harrison, 2003; Yates & Sambrillo, 1984). Jeppson, Richards, and Granley (2003) found a variety of reasons their subjects engage in the binging process, including avoiding negative emotions and replacing the negative emotions with a sense of comfort. These binges are often followed by a purge or other forms of compensatory behavior in an attempt to void all the calories just consumed. Purging can occur in two forms, by self-induced vomiting and/or through the use of laxatives (Yates & Sambrillo, 1984; Fairburn & Harrison, 2003; Murphy et al., 2010; Jones et al., 2012; American Psychiatric Association 2013) while others may use other means to compensate for the calories that were consumed through fasting and excessive exercise (American Psychiatric Assocation, 2013). People who struggle with bulimia nervosa are often within a normal weight range, but due to persistent vomiting, are at a higher risk for their esophagus to rupture. Consistent purging can also cause damage to tooth enamel and increase the presence of mouth sores (Ximenes, Couto, & Sougey, 2010; Jones et al., 2012; American Psychiatric Association, 2013).

In addition to physical challenges, individuals with eating disorders often experience psychological issues with potential depressive disorders and/or anxiety disorders (American Psychiatric Association, 2013; Cooper & Fairburn, 2011; Murphy et al., 2010) as well as bipolar disorder (American Psychiatric Association, 2013). Depressive disorders include varying severities of depression such as major depressive disorder. Anxiety disorders include diagnoses such as anxiety and social phobia (American Psychiatric Association, 2013). This high comorbidity of multiple psychological disorders can make the treatment of eating disorders particularly difficult.

There are two psychotherapeutic approaches commonly implemented with people with eating disorders: cognitive behavior therapy and dialectical behavior therapy. Both forms of therapy work to empower patients to recognize how to change their thoughts and behaviors; this is done through multiple avenues including mindfulness and discussion (Lenz, Taylor, Fleming, & Serman, 2014; Murphy et al., 2010).

Cognitive behavior therapy encourages patients to recognize and modify any negative cognitive processes that allow individuals to maintain their eating disorder behaviors. Some of the cognitive processes that may need modification include challenging distorted thinking patterns, discounting positive qualities, distorted thinking patterns, and overgeneralizing failures (Murphy et al., 2010). Cognitive behavior therapy is commonly used in the treatment of bulimia nervosa (Byrne, Fursland, Allen, & Watson, 2011; Murphy et al., 2010) but use of an enhanced version has been shown to be an effective form of treatment for anorexia nervosa as well (Cooper & Fairburn, 2011; Fairburn, et al. 2013). Enhanced cognitive behavior therapy addresses interpersonal difficulties that patients with eating disorders may struggle with, which Cooper and Fairburn (2011) believe could increase success of long-term recovery.

Dialectical behavior therapy (DBT) is a subset of cognitive behavior therapy created by Marsha Linehan. DBT utilizes both behavioral and acceptance strategies and pulls from Zen Buddhist principles and biosocial theory to decrease behaviors that are life-threatening and interfere with therapy as well as their quality of life (Chen, Matthews, Allen, Kuo, & Linehan, 2008; Lenz et al., 2014; Linehan, 1993). Dialectical behavior therapy was initially created to treat those who are chronically suicidal and those who are diagnosed with borderline personality disorder (Linehan, 1993; Linehan, 2014). Research has found that dialectical behavior therapy is a good therapeutic choice when treating other mental health diagnoses related to emotional

dysregulation, including eating disorders (Federici & Wisniewski, 2013; Linehan, 2014; Lenz et al. 2014). While cognitive behavior therapy encourages patients to recognize ineffective thinking patterns tied to their eating disorder, dialectical behavior therapy looks to teach patients skills in order to combat both behavioral and cognitive issues brought about through their eating disorder (Federici & Wisniewski, 2013; Lenze et al., 2014). Common skills taught in dialectical behavior therapy for eating disorders include core mindfulness, emotion regulation, distress tolerance, interpersonal effectiveness, and addressing food consumption and body image (Federici & Wisniewski, 2013; Salbach-Andrae, Bohnekamp, Pfeiffer, Lehmukuh, & Miller, 2008). These skills are presented as rotating modules allowing the patients to work through each skill section one at a time (Federici & Wisniewski, 2013; Linehan, 2014; Wisniewski & Kelly, 2003). Researchers have found that dialectical behavior therapy is effective in decreasing the severity of depression symptoms in women with eating disorders (Lenz et al, 2014) as well as decreasing both anorexic and bulimic behaviors in patients with eating disorders (Federici & Wisniewski, 2013).

Expressive therapies can be used to enhance both cognitive behavior therapy and dialectical behavior therapy. One such expressive therapy is music therapy. As a treatment discipline, music therapy can be used to accomplish similar goals to both cognitive behavior therapy and dialectical behavior therapy. The American Music Therapy Association defines music therapy as "the clinical and evidence based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program" (Definition and quotes about Music Therapy, para.1). Within a psychiatric milieu, music therapy is used in both group and individual sessions, focusing on goals such as increased self-awareness, emotional expression, and

relaxation. There is something inherently emotional about music, which makes it an excellent therapeutic addition to both cognitive and dialectical behavior therapy. Music not only provides people with the space to process their thoughts and emotions through interventions like songwriting (Hilliard, 2001; Lejonclou & Trondalen, 2009; McFerran, Baker, Patton, & Sawyer, 2006) and lyric analysis (Hilliard, 2001; Lenjonclou & Trondalen, 2009), but it also has the potential to teach a number of skills dialectical behavior therapy looks to impact by playing instruments (Justice, 2004; Lejonclou & Trondalen, 2009), music discussion (Hilliard, 2001; McFerran, 2005; Lejonclou & Trondalen, 2009) and creating music individually or with a group (Justice, 2004; Lejonclou & Trondalen, 2009).

Research in music therapy with individuals with eating disorders has targeted both the treatment goals and suggested interventions. Some common goals music therapy has addressed with patients with eating disorders include decreasing food anxiety (Bibb, Castle, & Newton, 2015; Hilliard, 2001), reducing stress (Hilliard, 2001; Justice, 2004; Punch, 2016), increasing self-expression (Hilliard, 2001; Lejonclou & Trondalen, 2009; McFerran et al., 2006; Punch, 2016), increasing self-confidence (Lejonclou & Trondalen, 2009), and improving interpersonal skills (Hilliard, 2001; McFerran, et al., 2006). As an example, suggested interventions used by Hilliard (2001) to decrease food anxiety included listening to music and playing instruments. These interventions could be used during meal time or immediately following meal time. Both listening to music and playing instruments provided patients with a form of distraction while eating and diverted their attention away from their bodies as they digested their food. For patients who were more cognitively astute, songwriting and lyric analysis were common interventions used to increase discussion and further process ways to cope with the desire to engage in eating disorder behaviors (Lejonclou & Trondalen, 2009). Researchers targeting

common music therapy goals and interventions for individuals with eating disorders discuss the use of music and movement to encourage patients to reconnect with their bodies (Hilliard, 2001; Lejonclou & Trondalen, 2009). While these studies indicate a growing body of research regarding the use of music therapy with eating disorders, the majority of research is with individuals or small group case studies.

The purpose of this study was to determine common treatment goals and subsequent music-based interventions used by music therapists who work/worked with patients with eating disorders and to begin gathering information on the intentional adaptation of the elements of music commonly used to increase success of these treatment outcomes. Further, the intent of this survey was to provide a synthesis and overview of current clinical practice and wisdom useful to students and clinical music therapists interested in working with this population or those interested in conducting intervention-based research to determine the impact of music-based interventions on the needs of individuals with eating disorders.

Chapter 2

Review of Literature

History of Eating Disorders

While some view eating disorders as a modern day issue brought on by social pressure and media, there is a surprising amount of documentation about eating disorders prior to the nineteenth century when anorexia nervosa was the first eating disorder identified by medical professionals. Before the nineteenth century, self-starvation was viewed within a religious context and seen as a way to show devotion to God. As knowledge of physical processes increased, people began to view self-starvation through a medical lens and categorized food refusal as an illness. Over the years, this public perception of anorexia nervosa, a form of self-starvation, has shifted from a custom of religious devotion to a concerning disease.

Religious Ties to Eating Disorders. Fasting is a common practice in many religions. People often use fasting as a time to reflect on one's faith instead of one's worldly needs and desires. In early Christianity, fasting was used as a form of penance and purification, but rarely lasted more than three days (Bemporad, 1995). Early Christianity also saw an increase in people known as hermits. Hermits were males who gave up all earthly belongings as a way to show their devotion to God. Extreme fasting was a common ritual of hermits and was intended to display rejection of their bodies and earthly needs. These hermits were often viewed as holy entities and were believed to be closer to God than the average man. It was also believed that their devotion to God allowed them to cure both people and animals (Bemporad, 1995).

Male hermits were not the only people who shunned food to display their devotion to the Lord. Before the nineteenth century, there were a number of women who also gave up food in order to live for God. One young woman, Blessila, may be the first woman to have been

recorded as dying from self-starvation (Bemporad, 1995). Blessila died at the age of twenty after taking the teachings of St. Jerome, who urged women to fast daily and yearn to be with Christ, to heart (Bemporad, 1995). Some women who starved themselves for Christ were even granted sainthood after their deaths.

Many saints were known to starve themselves to the point of emaciation and death (Liles & Woods, 1999). St. Liberata (the liberator) was one such saint (Bemporad, 1995). St. Liberata refused nourishment after her father promised her hand in marriage to a man, even though she had chosen to make a vow of virginity and life-long service to the Lord. She prayed the Lord would strip her of all of her beauty and by refusing food she robbed her body of its natural curves and developed hair all over her body (Bemporad, 1995). After her death, many viewed St. Liberata as a hero, having found a way to remain true to her beliefs and cling to Christ instead of the earthly world's expectations. St. Liberata demonstrates how women used self-starvation as a way to gain control in situations where women historically had no control. St. Catherine of Siena is another female saint who starved herself to death, dying at the age of 32. She is recorded to have eaten very little and to regurgitate the little she did consume. St. Catherine is said to have had limitless energy and put all of her energy into helping others (Bemporad, 1995). After her death, many other devout young women followed St. Catherine of Siena's example of servitude.

As these young women began fasting for the Lord, claims that the Lord provided them with sustenance for life drew people from near and far to observe them. Often, the viewers brought money and gifts for the women, in hopes of gaining favor with the Lord (Bemporad, 1995, Liles & Woods, 1999). As time went on, more women began to self-starve in the name of the Lord, neglecting household duties, avoiding marriage and sex, and exerting control over others (Liles & Woods, 1999). Others claimed to give up food in an effort to spend all of their

time tending to the needy. Women would waste away as a physical way to show their obedience to God and His desire for people to help the poor. Again, they were believed to gain sustenance from God, making it possible for them to spend all of their time doing good deeds. Women who garnered notoriety and subsequent followers were often challenged by clergy and physicians who were curious to see if the Lord was really providing for the women (Bemporad, 1995, Liles & Woods, 1999). Clergy, physicians, and the general public would observe the women night and day, waiting for the women to sneak food (Bemporad, 1995). This often resulted in the women becoming so sick that they died or required immediate medical care.

For many years, the general public held these hermits and self-starving women in high esteem. There was a belief that anyone who could survive without food was blessed by God and therefore was closer to God. As science began to develop, people began to view extended fasting less as a spiritual experience and more as a medical issue.

The Movement to a Medical Model. In the early nineteenth century, physicians began writing of patients with symptoms similar to modern day anorexia nervosa (Liles & Woods, 1999). Martha Taylor was the first woman whose fasting was documented not in a religious context but in a medical context. John Reynolds wrote "discourse of prodigious abstinence" (1699) in which he claimed that Ms. Taylor did not starve herself for God or the Devil, but because something was physically wrong with her. Reynolds made the assumption that there was something in Martha Taylor's blood that was released between the ages of 14 and 20 that made it possible for her to live without food.

One physician referred to self-starvation as "sitomania" and claimed it was a cry for attention (Liles & Woods, 1999). During this time, self-starvation was more common in affluent young women, some of whom were diagnosed with hysteria, claiming they felt like food was

stuck in the back of their throats (Bemporad, 1995, Liles & Woods, 1999). Other doctors began diagnosing women who presented with symptoms of self-starvation with chlorosis, or "green sickness." Chlorosis was diagnosed based on the common presentation of green facial characteristics, common in patients with hypochromic anemia (Liles & Woods, 1999). With an increase in chlorosis diagnoses, one physician, Louden, noted that there appeared to be two categories of patients typically diagnosed with chlorosis. The first group included young, affluent women who presented with the loss of their menstrual cycle, depression, and self-starvation. Members of the second group were typically older, working class women who presented with edema, faintness, pallor, and dyspnea (Liles & Woods, 1999). Reports written in 1873 by both Gull and Lasegue discussed the possibility of an anorexia nervosa diagnosis and both independently described the physical symptoms associated with the disease (Bemporad, 1995, Liles & Woods, 1999). With Lasegue and Gull providing a name and diagnosis for those caught in a self-starvation pattern, health care providers began to focus more on what caused a person to starve him or herself.

In 1940, Waller, Kaufman, and Deutsch suggested that anorexia was born out of an oral fixation brought on from difficulty transitioning into adulthood. While the patient is attempting to move from adolescence to adulthood, hardships can cause the patient to regress back to the oral fixation stage of childhood. In 1963, Selvini-Palozzoli created the familial-transactional model, which hypothesized that the mother keeps her daughter from becoming an individual, thus making the daughter feel like a slave to her family's expectations. By feeling like a slave to her family's expectations, the individual with anorexia begins to fear her own body as it develops naturally and seemingly out of her control.

Eating Disorder Pathology

People who struggle with eating disorders come in all shapes and sizes and include both females and males. There are specific things doctors look for when diagnosing a person with an eating disorder that also determines the type. Three types of eating disorders are anorexia nervosa, which is when a person restricts food, bulimia nervosa, which is characterized by binging and purging, and binge eating disorder which is characterized by eating portions larger than a person would typically eat in a short period of time (American Psychiatric Association, 2013). There is also Other Specified Eating Disorder (OSFED) previously referred to as Eating Disorder Not Otherwise Specified (ED-NOS) that was given as a diagnosis to those experiencing distress but not fitting neatly into anorexia nervosa, bulimia nervosa or other feeding and eating disorders (American Psychiatric Association, 2013). Due to the similar but less severe nature of OSFED, this section will expand on better understanding anorexia nervosa, bulimia nervosa, and binge eating disorder.

Anorexia Nervosa. There are three diagnostic requirements that must be met in order to diagnose someone with anorexia nervosa. The three criteria required are "persistent energy intake restriction; intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain; and a disturbance in self-perceived weight or shape." (American Psychiatric Association, 2013, p. 339).

While the diagnosis heavily focuses on the patient's weight and fears of gaining weight, research has noted that there is the strong potential for psychological impact from eating disorders. Many people with eating disorders have co-occurring diagnoses of anxiety disorder, depression, and other affect/mood disorders (American Psychiatric Association, 2013; Hudson,

Hiripi, Pope, & Kessler, 2007; Liles & Woods, 1999). The common occurrence of a comorbid diagnoses for those with eating disorders confirms how intertwined the physical and psychological struggles are within individuals.

Nordbo, Espeset, Gulliksen, Skarderud, and Holte (2006) researched what meaning patients with anorexia derived from their disease. The women discussed the psychological reasoning behind their eating disorders; topics ranged from feeling a sense of control and avoiding feelings to hoping to disappear and die. The sense of control these participants discussed provided them with a feeling of superiority over food and others by controlling what they did or did not eat. This sense of control also yielded an increase in perceived mental strength, giving patients a perception of increased self-discipline. Interestingly enough, this sense of control that the women in Nordbo et al.'s (2006) study discussed was also present in Gorse, Nordon, Rouillon, Pham-Scottez, and Revah-Levy's (2013) and Paulson-Karlsson and Nevonen's (2012) research. These researchers focused on the reasons why women sought treatment for eating disorders and what women hoped to gain from treatment. Both sets of participants shared that they had lost control of their eating disorder and were seeking treatment in hopes of regaining control. Unlike Nordbo et al.'s (2006) patient's, these women no longer felt as though they had the option of whether they ate or not and shared that they were consumed with thoughts about food.

Nordbo et al.'s (2006) patients also discussed how their anorexic behavior provided them with a sense of stability by creating rules about food. These self-created rules provided the women with a constant in their lives and something predictable to rely on in a world that is often unpredictable (Nordbo et al., 2006). Other meanings derived from the eating disorder included an increased sense of confidence bolstered by compliments from friends and family, as well as an

increased sense of care. Participants cited an increased sense of care was brought about by family and friends expressing their concern and worry over the participants' extreme weight loss (Nordbo et al., 2006). Instead of reading this concern as an issue, participants shared that it made them feel loved and noticed, garnering more attention from those around them. This research indicated that while there is clearly a physical aspect to anorexia, there is also a strong mental component that can become all consuming.

Bulimia Nervosa. The three diagnostic criteria a person must meet in order to be diagnosed with bulimia are: "Recurrent episodes of binge eating; recurrent inappropriate compensatory behaviors to prevent weight gain; self-evaluation that is unduly influenced by body shape and weight" (American Psychiatric Association, 2013, p. 345). In order to qualify for a diagnosis of bulimia, the person must binge-eat and inappropriately compensate for the binge episode at least once a week for three months.

Bulimia nervosa is similar to anorexia nervosa in the sense that there is a strong psychological component tied to the binging and purging experience. Many people who seek treatment for bulimia nervosa cite that they were overweight before engaging in the binge and purge behavior (Jeppson, Richards, Hardman, & Granley, 2003; Yates & Sambailo, 1984). This realization or fear of being overweight initially drew the patients to binging and purging. While going through treatment, some participants realized that they were not actually overweight but initially believed themselves to be (Jeppson et al., 2003).

Researchers looked into the reasoning behind why people diagnosed with bulimia nervosa engage in such behavior. Lindgren, Enmark, Bohman, and Lundstrom (2015) found that women in treatment for bulimia nervosa found their identity entangled within the disease. By engaging in this behavior for an extended period of time, participants found that their emotions

and life experiences were tied to these binge and purge behaviors (Jeppson et al., 2003). Jeppson, et al (2003) looked into patients' perceptions of the binge and purge process. Many of their participants shared that they binged and purged as a way to cope with various stressors in their lives and that this process provided them with a sense of independence and control (Jeppson et al., 2003). Participants derived a sense of superiority by feeling as though they found a way to truly 'have their cake and eat it too'. By binging and purging, the participants were allowed to eat all of the foods that would typically be "off limits" and did not have to worry about gaining weight. Participants also provided insight into triggers that caused the person to engage in binging and purging behavior. Some noted that they used binging and purging as an act of defiance towards their parents or in response to family arguments (Jeppson et al., 2003; Yates & Sambrailo, 1984). Participants also discussed how they used binging and purging as a way to avoid unpleasant emotions such as loneliness, boredom, anxiety, and depression. Binging provided patients with a sense of comfort and helped fill the feeling of emptiness noted by many participants (Jeppson et al., 2003). Some described using the binge and purge episodes as a respite from obligations due to the intense focus they placed on the binging and purging process. This intense focus provided patients with a chance to take a break from various negative emotions or stressors (Jeppson et al., 2003). Many participants in Jeppson et al.'s (2003) study also found that vomiting provided them with a sense of relief and sometimes a symbolic representation of releasing negative emotions and experiences from their lives.

Binge Eating Disorder. The diagnostic criteria associated with binge eating disorder (BED) states that "recurrent episodes of binge eating must occur, on average, at least once per week for 3 months" (American Psychiatric Association, 2013 p. 350). A binge eating episode is defined as eating a large amount of food compared to what most people would eat under the same

circumstances in a finite period of time, typically under two hours (American Psychiatric Association, 2013). While BED initially sounds very similar to bulimia nervosa the main difference is that those with BED typically do not hold themselves to the same diet restrictions outside of the binge eating episodes as those with bulimia nervosa. Dieting also often follows the development of BED as opposed to bulimia nervosa which dieting usually precedes the development of binge eating (American Psychiatric Association, 2013). Since those with BED do not follow strict dietary guidelines they have a higher chance of being obese or becoming obese (American Psychiatric Association, 2013; Dingemans & van Furth, 2012; Gearhardt et al., 2012). Gearhardt et al. (2012) studied the correlation between food addiction and binge eating disorder in obese patients seeking treatment. They found a strong correlation between binge eating and food addiction with 57% of patients meeting the diagnostic requirements for food addiction based on the Yale Food Addiction Scale (YFAS).

Researchers have found that people with BED are at a higher risk for struggling with depression and emotion regulation (American Psychiatric Association, 2013; Dingemans & van Furth, 2012; Gearhardt et al., 2012; Roberto, Grilo, Masheb, & White, 2009; Schreiber-Gregory et al., 2013). The Diagnostic and Statistical Manual of Mental Health Disorders (5th ed.) also notes that those struggling with BED are also at a higher risk for having comorbid diagnoses of bipolar disorders and anxiety disorders. While examining the duration of binges in BED, Schreiber-Gregory et al. (2013) discovered that the participants whose binges lasted longer than two hours displayed more symptoms of depression and had lower self-esteem than those whose binges were less than two hours. Even though Schreiber-Gregory et al. (2013) found an increase in depression based on length of spent in a binge eating episode, Dingemans and van Furth (2012) did not find a difference in number of depressive symptoms displayed by participants

with binge eating disorder based on size. Instead they found, regardless of if they were obese or of a normal weight, participants with BED had similar levels of depression and concern about their eating habits and their shape/weight. Dingemans and van Furth (2012) also found that those who were in a normal weight range were less likely to seek help for their eating disorder which presents a risk for them to gain significant amounts of weight if their eating disorder is left untreated. Due to the frequency with which depression is found within those struggling with BED suggests that patients with BED require both physical and psychological help.

The variety of meanings and triggers associated with eating disorders shows the complexity of treating individuals with eating disorders. People suffering from anorexia nervosa and bulimia nervosa relate a number of positive experiences within their eating disorder (e.g., garnering attention from those around them). When treating an individual with an eating disorder, an emphasis should be placed not only on restoring the body, but also the mind.

Current Trends in Eating Disorder Treatment

There are two forms of psychotherapy commonly used with patients with eating disorders: Cognitive Behavior Therapy (CBT) and Dialectical Behavior Therapy (DBT). Both therapies focus on providing patients with the tools necessary to change both their thought patterns and behavioral responses to triggers. While both therapies focus on similar goals, each therapy uses different concepts to help patients reach a healthy state. Both CBT and DBT can be used in individual and group sessions. Patients can also engage in these therapies in a number of settings that are chosen based on patients' needs.

Cognitive Behavior Therapy. Cognitive behavior therapy (CBT) is a popular form of psychotherapy treatment used to treat eating disorders. CBT examines the relationships between thoughts, feelings, beliefs, and behaviors working on the assumption that change in one area can

lead to change in the other areas (Corey, 2016). CBT is often used in the treatment of eating disorders because it works to challenge the patient's beliefs about food and weight (Murphy et al., 2010). Eating disorders are often about more than losing weight or staying thin, and rather, may stem from perfectionistic qualities, low self esteem, interpersonal struggles, and difficulty coping with intense feelings (Cooper & Fairburn, 2011). Therapists who align themselves with CBT believe that the eating disorder is cognitive in nature due to patients' over evaluation of their body shape and weight (Murphy et al., 2010). Researchers have found that cognitive behavior therapy is an effective psychotherapy treatment for bulimia nervosa (Byrne, Fursland, Allen, & Watson, 2011; Cooper & Fairburn, 2011; Kettlewell, Mizes, & Wasylyshyn, 1992). This may be because this form of psychotherapy views binging and purging as a maladaptive coping strategy that provides patients with a momentary sense of relief from negative mood states (Murphy et al., 2010). By helping patients identify what drives their binging and purging, patients can be taught better coping strategies when faced with triggers. Patients receiving treatment for an eating disorder typically engage in both group and individual therapy.

There is a significant amount of research looking at the effectiveness of group therapy because it provides a cost effective way for hospitals to work with a larger number of people at once (Dedman, Numa, & Wakeling, 1988; Kettlewell et al., 1992; Lloyd, Fleming, Schmidt, & Tchanturia, 2014; Openshaw, Waller, & Sperlinger, 2004; Polnay, James, Hodges, Murray, Munro, & Lawrie, 2014; Chen et al., 2003). Dedman et al. (1988) found that in group cognitive behavior therapy sessions, six of the eight members were having one or fewer binging/purging behaviors a week and at the six month follow up had maintained their recovery. In a similar study, Kettlewell et al. (1992) found that 69% of participants were free from binging episodes at the end of the treatment but only 15% were still binge free three months' post treatment. Chen et

al. (2003) looked further at group CBT by comparing it to individual CBT. This study found that individual therapy showed a significant decrease in binge-purge behavior as opposed to no change in those participating in group CBT. While binge-purge behavior was not significantly different in group CBT, group CBT did score higher in improving patient's social skills, impulse control, and state anxiety (Chen et al., 2003). Chen et al. (2003) also found that those participating in the group CBT sessions reported feeling more motivated and supported during treatment which possibly played a role in their improved social skills, impulse control, and state anxiety ratings. These studies suggested that group cognitive behavior therapy could provide more immediate behavior modifications encouraging recovery, but perhaps lacked sustainability in regards to long-term recovery. As previous research continued to find varying levels of success with both group and individual cognitive behavior therapy, researchers began looking at how to improve this popular treatment strategy.

In response to how cognitive behavior therapy could be improved to better help people with eating disorders, enhanced cognitive behavior therapy (CBT-E) was created. CBT-E looks to provide additional focus on areas of need that CBT did not originally address. CBT-E places a greater emphasis on the use of behavior modification to inform cognitive change instead of focusing solely on cognitive restructuring (Murphy et al., 2010). CBT-E provides additional modules to address issues of "clinical perfectionism," "mood intolerance," core low self-esteem, and interpersonal difficulties (Cooper & Fairburn, 2011). Enhanced cognitive behavior therapy also provides two levels of intensity of either twenty sessions over twenty weeks or forty sessions over forty weeks depending on the patient's needs (Cooper & Fairburn, 2011; Murphy et al., 2010).

Clinically, CBT-E has been found to be a statistically significant form of treatment for eating disorders. Fairburn et al., (2013) looked into the effectiveness of CBT-E in treating patients with anorexia nervosa. Researchers used the forty weekly treatment sessions in order to fully address the needs of patients with anorexia nervosa and found that 60% of patients gained enough weight to be considered medically healthy and had decreased their eating disorder psychopathology. Fairburn et al. (2013) further found that patients maintained an overall sense of health a year post CBT-E treatment while Byrne, Fursland, Allen, and Watson (2011) found that, of those treated with enhanced cognitive behavior therapy, over half were in "full remission" with another 10% in partial remission at the end of the study. Byrne et al., (2011) also noted that while 50% of patients with anorexia nervosa were in remission by the end of treatment, that was still less than the 66.7% of patients with bulimia nervosa who were also considered to be in full remission by the end of treatment using the same protocol. These studies suggest that enhanced cognitive behavior therapy is a viable form of therapy to use not only for bulimia nervosa (Byrne, et al., 2011; Cooper & Fairburn, 2011; Kettlewell, et al., 1992) but also for anorexia nervosa.

Dialectical Behavior Therapy. Dialectical behavior therapy (DBT) is a skill-based form of psychotherapy created by Marsha Linehan that was developed from a combination of CBT, dialectics, biosocial therapy, and Zen-Buddhist tradition that uses acceptance and mindfulness to encourage positive change (Ben-Porath, Federici, Wisniewski, & Warren, 2014; Lenz et al., 2014; Linehan, 1993). DBT aims to teach patients real world skills such as interpersonal effectiveness, mindfulness, distress tolerance skills, and emotional regulation skills (Linehan, 2014). Dialectics puts an emphasis on a "systems perspective of reality" (Linehan, 1993, p. 30) stating that looking at the different parts are of little value without seeing how they connect as a

whole. Furthermore, Linehan (1993) stresses the fact that reality is not static and that there are constant polarizing forces at play working against each other (thesis and antithesis) that leads to constant change. Therapists who align themselves with this form of therapy often believe one's emotional dysregulation is brought about from a combination of genetic predisposition to "intense emotional experiences" and "negative experiences during one's formative years" (Lenz et al., 2014, p. 27; Linehan, 1993). Signs of emotional dysregulation include an inability to regulate emotional arousal, difficulty moving forward from strong emotions, "cognitive distortions and failures in information processing" (Linehan, 2014, p. 6), and a lack of control in controlling impulsive behaviors tied to emotional cues (Linehan, 2014). Counselors and therapists view these negative experiences as the creation of core characteristic deficits in one's mental health (Lenz et al., 2014). Research has shown that dialectical behavior therapy can decrease the severity of depressive symptoms (Lenz et al., 2014) as well as decrease binge/purge behavior and restrictive type eating disorder behaviors in women with eating disorders (Ben-Porath et al., 2014; Federici & Wisniewski, 2013).

Federici and Wisniewski (2013) researched the use of dialectical behavior therapy with patients with multi-diagnostic eating disorder presentations. The goals Federici and Wisniewski focused on were decreasing life-threatening behavior, reducing behavior that interfered with treatment, decreasing the quality of life interfering behaviors, and increasing behavioral skills (Federici, Wisniewski, & Ben-Porath, 2011). Since dialectical behavior therapy is a skill-based treatment, rotating modules used to enhance skills training were implemented. These rotating modules focused on core mindfulness, emotional regulation, tolerating stress, interpersonal effectiveness, dealing with food and body image, and "walking the middle path" which refers to finding the balance between mindful eating and awareness (Wisniewski & Kelly, 2003 pg. 134).

Federici and Wisniewski (2013) found that their participants had a significant decrease in behavioral symptoms of anorexia and bulimia. Federici and Wisniewski were not the only researchers to find significant results in dialectical behavior therapy providing remission for patients with eating disorders – Ben-Porath et al. (2014) discovered significant results in reducing the frequency of binging and purging as well as restriction and excessive exercise in participants with the use of dialectical behavior therapy. These researchers utilized mindfulness to teach patients how to sit and be comfortable with their emotions.

Research has indicated that both cognitive behavior therapy and dialectical behavior therapy are viable options when treating those with eating disorder pathologies. Both forms of treatment work towards similar goals but use different strategies to achieve success. Music therapy is another form of therapy that has the possibility of further enhancing both dialectical behavior therapy and cognitive therapy. As an expressive therapy, music therapy offers a way to enhance the goals associated with both dialectical behavior therapy and cognitive behavior therapy. By providing another avenue to express themselves, patients can utilize a different avenue to explore their emotions and work towards the different skills such as social skills, mindfulness, and communication skills through songwriting, instrument play, and music listening/discussion (Hilliard, 2001; Lejonclou & Trondalen, 2009; McFerran et al., 2006; Heiderscheit & Madson, 2015; Justice, 1994).

Music Therapy Interventions

"Music therapy draws on the expressive function of music to facilitate self-expression and promote the development of insight and growth" (McFerran et al., 2006, p. 398). When working with patients with eating disorders, music therapy can be used as a creative way to further encourage discussion, deepen introspection, and develop positive coping strategies.

Music therapy can be individualized to fit each patient's needs, as shown through the various goals music therapy can target (Heiderscheit, 2008). While there is a growing amount of research focusing on music therapy with eating disorders, many of the articles published are case studies looking at interventions used with individual clients or small groups (Bauer, 2010; Heiderscheit & Madson, 2015; Hilliard, 2001, Lejonclou & Trondalen, 2009; and McFerran, 2005). While majority of music therapy and eating disorder research are case studies focused on individuals or small groups, these articles still provide valuable information about interventions music therapists are employing around the world.

Music Listening. Music therapy interventions require a varying degree of participation from patients; some interventions are very passive in nature while others are much more active and require the patient to engage in creating music. Music listening in its most simplistic form, without the expectation of discussion, is the most passive way to engage in music therapy. People listen to music for many different reasons. Some use music listening to reflect or alter their mood, some for enjoyment, or for distraction. In music therapy, Bruscia (2014) notes many different ways to utilize music listening including to improve relaxation, to aid in meditation, and song communication; when a client brings in a recorded song to help them express something pertinent about themselves within the therapeutic context. When receiving treatment for an eating disorder, CD's and iPods can be distributed to provide patients with the opportunity to use music listening for these and other comparable reasons (Heiderscheit & Madson, 2015, Hilliard, 2001, & Lejonclou & Trondalen, 2009; Punch, 2016). Hilliard (2001) explored the use of music listening during meal time to decrease anxiety attached to eating and increase patients' ability to eat. In the researcher's study music listening was utilized in two distinct ways during meal time, some patients would sing songs from sing-along sessions to help another patient through a

difficult meal, while others would create playlists with their therapist to listen to privately while eating. Punch (2016) discusses using music listening in a similar fashion, working with adolescents to create a coping playlist to listen to during specifically challenging times such as bed rest. She refers to this exercise as a "coping playlist exercise" (pg. 85-86) and encourages patients to figure out what musical elements within the song such as the rhythm or the words will help them best focus and stay present within the context of the music.

Heiderscheit and Madson (2015) wrote about the use of the iso principle when working with a patient with an eating disorder. Iso principle is the concept of using music to meet a patient where they are either emotionally or physically and altering the music slowly to change either the emotional or physical state of the patient (Davis, Gfeller, & Thaut, 2008). Researchers aimed to match and then change the patient's mood to alleviate her depression. Heiderscheit and Madson worked with their patient to create a playlist that could be used to reflect and then change the patient's mood. The songs that were chosen for the playlist varied from songs that reflected the patient's darkest, depression moments and progressed to songs that reflected the patient's most hopeful moments. While creating the playlist, they felt it was vital to use patient preferred music, which increased the likelihood that the patient would use the playlist when not engaging in therapy (Heiderscheit & Madson, 2015). The patient reported using the playlist regularly to find which song reflected her emotions in that moment and helped her move to a happier, more hopeful state of mind.

Music and Relaxation. Many patients receiving treatment for an eating disorder also struggle with anxiety. Relaxation is a common technique used by music therapists to address issues of anxiety and stress. "The intent of music-reinforced relaxation is to provide the patient with

experiences in self-regulation for coping with anxiety and stress related to changing behaviors and changes felt in the body with weight gain" (Justice, 1994, p. 106).

There are a number of relaxation techniques used in relation to eating disorder treatment. Progressive muscle relaxation (PMR) can be used and is especially helpful for patients who are more concrete in their cognitive abilities (Justice, 1994). Progressive muscle relaxation requires patients to focus on their breathing and the tensing and releasing of the various muscle groups in the body, moving from the feet up to the face. Guided imagery is another successful form of music-enhanced relaxation that allows the patient to place him or herself in different, relaxing settings. It is important, when using guided imagery and music, to ensure that the patient or patients choose a safe place that is calm and relaxing for them. During guided imagery, music is used to redirect the attention away from obtrusive thoughts (Justice, 1994). This can be used to help relax patients after eating and provide them with a relaxing setting in which their focus can be directed away from their food or potential maladaptive behaviors related to food ingestion.

Lyric Analysis. Lyric analysis is a common music therapy intervention that uses song lyrics to encourage discussion and introspection from patients. Hilliard (2001) used lyric analysis with patients with eating disorders in a small group setting to enhance discussion about various cognitive issues including increasing self-esteem, improving sense of empowerment, and "challenging negative and self-defeating body distortions" (Hilliard, 2001, p. 111). Lyric analysis easily aligns with the cognitive behavior therapy concept in providing patients with opportunities to recognize the relationship between their thoughts, feelings, and behaviors. Since lyric analysis is very open ended in nature it provides patients and therapists with opportunities to both discuss their thoughts and feelings, as well as work towards various skills by discussing songs that have themes that are tied to skill areas such as coping skills, interpersonal skills, and

communication skills. Lyric analysis is commonly used in a group setting but can also be effective in one-on-one sessions.

Songwriting. Songwriting is used in small groups and individual sessions (McFerran et al., 2006) and provides patients with the opportunity to work in both a cognitive and creative state of mind simultaneously. The songwriting process itself is therapeutic by allowing patients total control over the creation of the song, choosing everything from the style of the song to the theme and lyrics. It provides patients with an opportunity for self-expression in a creative manner while also giving them the space to disclose experiences (McFerran, 2005). Writing lyrics provides patients with the opportunity to think critically and process various aspects of their life that they want or need to share, as well as "actively challenge disordered thinking that is commonly attributed to 'the eating disorder" (McFerran & Heiderscheit, 2016, p. 64). Heiderscheit (2008) discussed the importance of the group songwriting process. She highlighted how the goal is not about the end product but about the opportunity to discuss experiences and feelings. McFerran et al. (2006) found that patients' personal songs often brought about themes that were not discussed in typical talk therapy further expanding on how valuable the songwriting process is to helping patients open up.

Parente (1989) worked alongside acting therapy to create a musical based on the life experiences of women recovering from eating disorders using songwriting to create the music for the musical. Song topics discussed patients' fears of being fat and needs for effective coping mechanisms (Parente, 1989). The combination of both creating music and performing the music for an audience provided patients with an opportunity to not only increase self-expression but to also increase their sense of empowerment and improve interpersonal skills by learning to work with others towards a common goal (Parente, 1989).

Playing Instruments. Interpersonal skills and communication skills are vital life skills that require modeling and practice for effective facilitation. For patients who are less introspective or perhaps intimidated by songwriting, instrument play provides additional opportunities to work together with the therapist and with peers when in a group setting. Instrumental improvisation is often viewed as less intimidating than singing as long as it is structured around rhythm or melody (Justice, 1994). In contrast, instrument play can be anxiety producing for those patients with a perfectionist quality. Fear and anxiety can come into play when patients are pushed to engage in a new task, such as drumming, where failure is believed to be an option (Heiderscheit, 2008). Learning that they can successfully participate in instrument play without extensive musical training and background can provide a feeling of freedom for some while it can cause great stress for others to not have a specific instruction on how to perform (Justice, 1994). In Heiderscheit's (2008) case study of instrument play, patients discussed how engaging in instrument play pulled them out of the eating disorder and helped them focus on engaging in the present task.

Instrument play can also provide patients who are less inclined to speak an opportunity to explore their emotions and various aspects of their life, and express themselves in a safe setting (Trondalen, 2016). Group improvisation provides opportunity to discuss patients' perceived role within the group's musical creation (Justice, 1994). Instrument play can take on many forms from musical games used to distract the mind while food digests (Hilliard, 2001) to providing a safe outlet for emotions (Justice, 1994). Instrument play can be as structured or as open as indicated based on the patients needs in that moment. For patients who are less inclined to process verbally, instrument play provides them with a voice. By using instruments to represent various emotions or by playing in a call and response pattern, patients are given the opportunity

to control the music and emote in ways most appropriate for their needs (Lejonclou & Trondalen, 2009).

Movement and Music. Music and movement is used with those who are medically stable and able to participate in physical activity. Music and movement focuses on increasing patients' comfort level in engaging in a wider degree of movements with their bodies than perhaps typical (Justice, 1994). Movement experiences include "stretching, centering and balancing, moving different body parts in rhythm, group juggling with nerf balls, parachute play, dancing with scarves, and pantomime" (Justice, 1994, p. 108). Lejonclou and Trondalen (2009) used music and movement with their individual clients by mirroring movements that encouraged the patient to learn "how to be with others" and gain comfort in being with oneself as well. Possible goal areas that music and movement could address in both cognitive behavior therapy and dialectical behavior therapy include improving interpersonal relationships, improving the mind/body relationship, and learning to balance exercise and rest.

While there is not an extensive literature specifically about the use of music therapy when working with eating disorders, and the literature that is available is primarily case studies, it appears evident that music therapy offers potential flexibility to enhance typical treatments for individuals with eating disorders. Music therapy can provide patients with additional opportunities for expression, introspection, and learning new skills.

Purpose of Study

The purpose of this study was to determine common treatment goals and subsequent music-based interventions used by music therapists who work/worked with patients with eating disorders and to begin gathering information on the intentional adaptation of the elements of music used to increase success of these treatment outcomes. Further, the intent of this survey was

to provide a synthesis and overview of current clinical practice and wisdom useful to students and clinical music therapists interested in working with this population or those interested in conducting intervention-based research to determine the impact of music-based interventions on the needs of individuals with eating disorders.

Research questions for this study were answered through an online survey:

1. What are the demographics of therapists and the patients with eating disorders with whom music therapists are working (i.e., age ranges, gender, work experiences)?
2. What are the contexts in which music therapists are working with individuals with eating disorders (settings, philosophical orientations, types of sessions-individual or group, co-treatment venues)?
3. From a list of goals found in the literature and those added by the music therapists (survey participants),
    a) What are the most frequent goals addressed in individual and group sessions?
    b) By whom and how are they chosen?
4. What music-based interventions do music therapists use to address these specific goals and how do they select specific interventions?
5. What elements of music (e.g., timbre, dynamics, pitch) do music therapists intentionally alter and what is their clinical rationale, and if known, the research support, behind those decisions?

Chapter 3

Method

Participants and Recruitment

Participants were music therapists who are members of the American Music Therapy Association (AMTA). Participants were required to have experience working with individuals with eating disorders. Demographic information about the participants was gathered through an initial section of the survey and is reported in the Results chapter.

Potential participant emails were obtained through the American Music Therapy Association (AMTA). The researcher submitted a request form including the survey and proof of Institutional Review Board approval to AMTA. The researcher requested emails of music therapists working in eating disorder treatment centers, mental health facilities, psychiatric hospitals, general hospitals, and private practice. These settings were chosen due to the likelihood that these music therapists would treat individuals with eating disorders.

Human Subjects Informed Consent

Once email addresses were obtained from AMTA, possible participants received an email requesting their participation in the survey and provided a link to the online survey. The email discussed the purpose of the study, what information the survey would address, that the Institutional Review Board of the researcher's affiliated university had approved the research study, and that participation was voluntary and anonymous. An information statement was included as the first page of the survey and indicated that completion of the survey implied informed consent.

Materials

The researcher created the survey with Survey Monkey (surveymonkey.com) chosen as the platform for dissemination so the identities of those who participated remained anonymous to the researcher (see Appendix A for a copy of the survey). The survey is comprised primarily of multiple-choice questions and a select few open-ended questions designed to answer the five previously stated research questions. The survey was reviewed prior to dissemination by two individuals, one with experience working with individuals with eating disorders and one experienced in survey construction. The purpose of this study was to determine common treatment goals and subsequent music-based interventions used by music therapists currently working with patients with eating disorders and to begin discussion on the intentional adaptation of the elements of music to increase success of treatment outcomes.

The survey was divided into six sections, with the first page of the survey providing the information statement. The first section of the survey, *Demographics*, asked basic information about the participants who responded to the survey. Questions about gender, age, number of years in the field, and current AMTA region or area can be found in this section.

The second section, *Experience Working with Individuals with Eating Disorders*, explored general information about the clinician's experiences in working with people with eating disorders. Questions about years of experience working this population, setting, part versus fulltime status, age ranges of clients, average session percentage of discussion/verbal processing, and philosophical orientation of the therapist/setting can be found in this second section. The third section, *Clinical Practice with Individuals with Eating Disorders,* expanded on section two and gathers more specific information about individual versus group sessions

including size and number, as well as instances of co-leading with other professionals and how the therapist determines whether a client is served in individual or group sessions.

The fourth section, *Goals of Music-based Interventions,* provided a list of goals found in the pertinent literature and asked survey respondents to add additional goals as appropriate. After this expanded list was created, music therapists were asked to rank order the goals most frequently addressed and describe how these goals were selected for target. This section had a mix of multiple choice questions and open-ended questions about the goals the music therapist works towards. Space was provided for participants to add additional goals not listed by the researcher. Six predetermined treatment goals were provided as responses to the initial question with an option for participants to add additional goals as applicable. Specific goals listed in the survey are synthesized from previous research articles written by Nolan (1989), Justice (1994), Hilliard (2001), McFerran et al. (2006), Lejonclou and Trondalen (2009), Federici and Wisniewski (2013), Bibb et al. (2015), and Punch (2016). Goals include decreasing food related anxiety, increasing emotional expression, increasing relaxation, improving coping skills, increasing self expression, improving interpersonal skills, addressing low self-esteem, decreasing need for perfectionism, decrease life threatening behavior, and reducing behaviors that interfere with treatment.

The fifth section of the survey, *Music-based Interventions to Address Goal Areas,* focuses on interventions including music listening (live and recorded) (Heiderscheit & Madson, 2015; Hilliard, 2001; Lejonclou & Trondalen, 2009; Punch, 2016) music guided relaxation (Justice, 1994), lyric analysis (Hilliard, 2001), instrument play (Justice, 1994; Lejonclou & Trondalen, 2009; Nolan, 1989), songwriting (Lejonclou & Trondalen, 2009; Hilliard, 2001; McFerran et al., 2006), and movement to music (Justice, 1994; Lejonclou & Trondalen, 2009).

Space was provided for participants to provide further feedback about possible interventions that may not be included in the survey. A matrix question was provided for survey respondents to indicate which interventions or 'techniques' they used to address which goals from section four. The final question in this section was open-ended and inquired how music therapists who work/worked with eating disorders choose which interventions they used during sessions to address particular treatment goals.

The final section of the survey, *Therapeutic Function of Music in Music-based Interventions with Individuals with Eating Disorders* and *Adaptation of Music Elements in Your Clinical Practice*, are comprised of a multi-part questions asking music therapists to disclose which elements of music they altered within what music therapy technique, and, what was the clinical rationale behind that decision. The music therapists were first asked to choose their most common goal area, then listed up to three potential music-based interventions (e.g., songwriting) they used to address this goal. After selecting one of those techniques, the music therapists indicated which music elements were intentionally adapted within this technique and described the clinical rationale or if known, the research support for that decision. Opportunities for inclusion of up to three music elements were provided. Definitions for the elements of music are from Hanson-Abromeit's (2015) research on the therapeutic functions of music. Timbre is considered "the characteristic quality of sound produced by a particular instrument" can also be considered the "tone color." Rhythm is defined as "a pattern of regular/irregular pulses caused in music by the occurrences of strong and weak melodic and harmonic beats" while tempo is the rate of speed in the music typically measured by a metronome. Hanson-Abromeit (2015) defines pitch as "a note that is determined by an instrument to sit to, to determine a key or keynote of a melody." Melody then is explained as "a succession of tones in musical compositions that are

distinguished from the harmony and rhythm that is the principle part in a composition." Hanson-Abromeit (2015) elaborates on dynamics as "the variation and gradation in the volume of musical sounds" and lyrics as "words created or used form others in music for communicable expression." The last three elements options for participants are form "manner of style of arranging and coordinating parts for a pleasing or effective result," harmony "simultaneous combination of tones, especially when blended into chords please to the ear," and style "how the music is being expressed via genre, form, period, etc."

Procedure

Upon approval from the researcher's university-affiliated Institutional Review Board and the American Music Therapy Association (AMTA), appropriate email addresses were obtained from AMTA. A subsequent email explaining the research project and containing the survey link was sent out to all music therapists currently working in mental health, hospitals, private practice or other appropriate contexts. Participants indicated their willingness to participate in the study by filling out the survey. The survey was available for response the moment the emails were sent to the music therapists. The survey remained open for three weeks with a follow up email sent to possible participants in the second and third weeks of the survey's timeline.

Data Analysis

Data were gathered from participant responses and analyzed using descriptive methods to answer the five primary research questions. For convenience of the reader, these are restated here:

1. What are the demographics of therapists and the patients with eating disorders with whom music therapists are working (i.e., age ranges, gender, work experiences)? (Survey Questions 1 through 5, 9 and 10)

2. What are the contexts in which music therapists are working with individuals with eating disorders (settings, philosophical orientations, types of sessions-individual or group, co-treatment venues)? (Survey Questions 6 through 8, 11 through 21)
3. From a list of goals found in the literature and those added by the music therapists (survey participants), (Survey Questions 22 through 25)
    c) What are the most frequent goals addressed in individual and group sessions?
    d) By whom and how are they chosen?
4. What music-based interventions do music therapists use to address these specific goals and how do they select specific interventions? (Survey Questions 26 through 30)
5. What elements of music (e.g., timbre, dynamics, pitch) do music therapists intentionally alter and what is their clinical rationale, and if know, the research support, behind those decisions? (Survey Questions 31 through 45, as appropriate)

This form of analysis provided descriptive statistics to answer each of the research questions. All multiple-choice and matrix responses yielded frequency and percentages and are reported as such. The researcher analyzed open-ended questions by reading each answer, including them in the frequency and percentage reporting as appropriate, and then describing the content of those responses. The summary of these responses was broken into four primary sections, additional goals, additional interventions, the reasoning behind using various interventions, and the adaptation of music elements in clinical practice.

Chapter 4
Results

The results section for this research study is organized around the five questions posed by the researcher in Chapter 2 and articulated in Chapter 3 as connected to the online survey.

Research Question #1: What are the demographics of therapists and the patients with eating disorders with whom music therapists are working (i.e., age ranges, work experiences)? (Survey Questions 1, 2, 5, 6, 7, 8 and 9)

Email addresses of individuals who report they work with individuals with eating disorders were requested from the American Music Therapy Association. A total of 631 email addresses were obtained and invitations to participate in the survey were extended. Of the 631 email addresses, two were returned as undeliverable, and 14 indicated that they did not work with individuals with eating disorders in a return email to the researcher. One participant started the survey but indicated in question 3 that s/he did not work with individuals with eating disorders so that participant's survey results were removed from analysis as s/he left the survey after question 4. From the final possible survey number, twenty-three (N=23) surveys were returned for a 3.64% return rate of possible respondents.

Participants indicated the AMTA region where they live as Midwestern (13.04%, n=3), New England (4.35%, n=1), Western (21.74%, n=5), Great Lakes (17.39%, n=4), Southwestern (13.04%, n=3), Southeastern (17.39%, n=4), and Mid-Atlantic (13.04%, n=3). Participants worked with people with eating disorders, less than 5 years (47.83%, n=11), 5-10 years (26.09%, n=6), 11-15 years (17.39%, n=4) or 16-20 years (8.70%, n=2), yet no participants had worked with this population more than 21 years (0.00%, n=0).

Participants indicated if they worked with this population full time (8.70%, n=2) or not (**91.30%, n=21**) and those who indicated that they did not work with this population full-time

were asked to identify what percentage of their workload was devoted to this population being inclusive of direct services, consultation, planning, and documentation. Of the 22 who answered this question, 18 gave percentages that were grouped in the following ranges: **1-5% (44.44%, n=8**), 10-20% (22.22%, n=4), 25-50% (33.33%, n=6). Four participants gave non-percentage answers that are labeled as "other". One participant indicating time in hours stating "10-15 hours" and two participants stating that percentage of time was dependent upon the patient admission to the facility. One participant who actually indicated they were full time, also answered question #6 by stating, "I work full time but our census is 20-25% eating disorders, usually co-morbid."

Although 21 participants identified themselves as not working full time with people with eating disorders, 22 responded to question #7. The one participant who answered yes they are full time but answered this question for non-full time participants, indicated they work in Psychiatric and as such his/her data are included below. Participants identified what other areas they worked in including medical pediatrics (50.00%, n=11), general medicine (22.73%, n=5), rehabilitation (9.09%, n=2), **psychiatric (59.09%, n=13**), special education (13.64%, n=3), private practice (18.18%, n=4), forensics (0.00%, n=0), and other (13.64%, n=3). Those who specified 'other' stated they also worked at an adult daycare (4.54%, n=1), a university clinic (4.54%, n=1), and oncology, dual diagnosis (4.54%, n=1). Since it is possible for participants to work in more than one other area, percentages for this question are above 100%.

Participants identified all age ranges they worked with, 5-12 (52.17%, n=12), **13-17 (82.61%, n=19)**, 18-30 (60.87%, n=14), 31-40 (43.48%, n=10), 41-50 (39.13%, n=9), 51+ (17.39%, n=4). Due to the potential for participants to work with multiple age ranges, the total percentage for this question is over 100%. After identifying all age ranges they have worked

with, participants then identified the age range they worked with most frequently, 5-12 (4.35%, n=1), **13-17 (60.87%, n=14)**, 18-30 (21.74%, n=5), 31-40 (4.35%, n=1), 41-50 (4.35%, n=1), 51+ (4.35%, n=1). See Figures 1 for visual representation of this information.

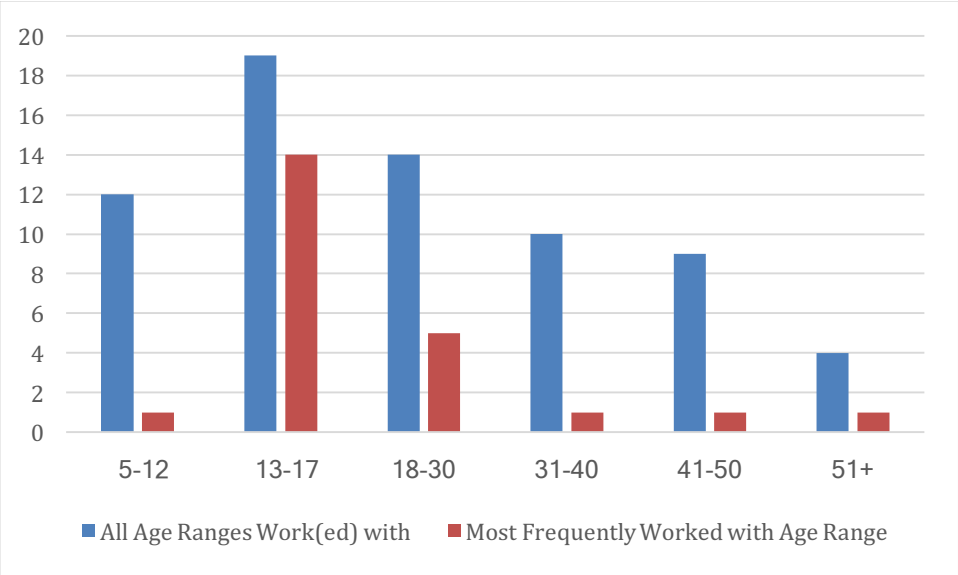

Figure 1. Age ranges of clients with eating disorders that survey participants work with in their clinical practice with an indication of age ranges most frequently served.

Research Question #2: What are the contexts in which music therapists are working with individuals with eating disorders (settings, philosophical orientations, types of sessions- individual or group, co-treatment venues)? (Survey Questions 3, 4, 10 through 19)

Participants identified in what setting they worked with individuals with eating disorders and indicated private practice (4.35%, n=1), **medical hospital (43.48%, n=10)**, psychiatric hospital (21.74%, n=5), mental health facility (4.35%, n=1), eating disorder recovery center (0.00%, n=0), and other (26.09%, n=6). Those who identified "other" further identified locations including "partial hospitalization/intensive outpatient programs," "university clinic," "school," "pediatric inpatient unit and adolescent partial hospitalization program," "children's medical hospital," while another used the 'other' space to list multiple areas where the participant had

worked with people with eating disorders stating "many – medical hospital, eating disorder recovery center, mental health facility, psychiatric hospital." As a note related to information regarding participants in Research Question #1, one used this space to specify that they have not worked with individuals with eating disorders and this individual was the participant removed from all data analysis as indicated under Research Question #1 so his/her data are not included in this or any other analysis.

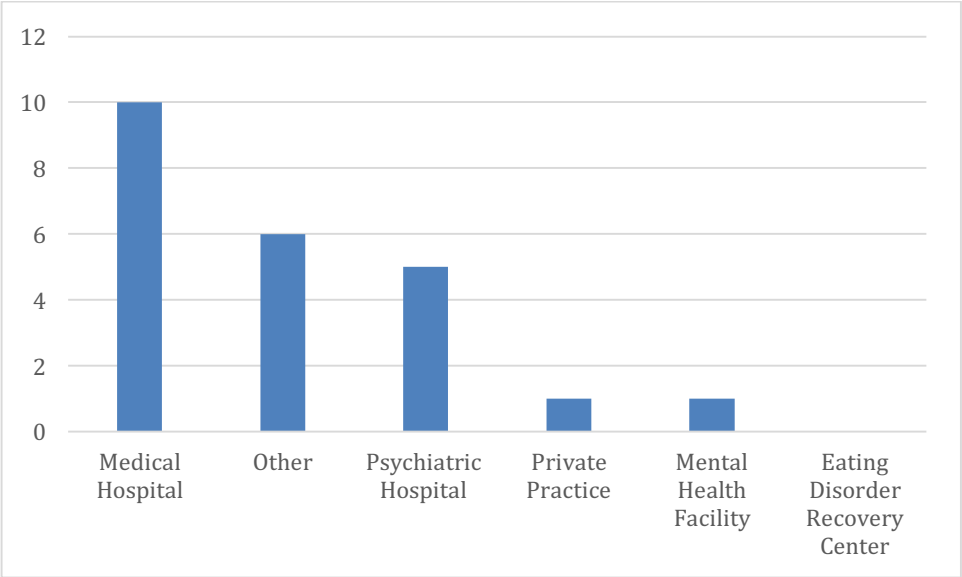

Figure 2. Settings where participants worked with individuals with eating disorders.

Participants identified the specific psychotherapeutic theoretical orientations that their facilities aligned with and were able to choose multiple orientations. All 24 of the original respondents answered this question including the individual who stated that she did not work with individuals with eating disorders thus this data for this question are based on 24 respondents. Results yielded the following information: **cognitive behavior (52.17%, n=12)**, client or person-centered (n=47.83%, n=11), behavior (34.78%, n=8), dialectical behavior (26.09%, n=6), integrative (21.74%, n=5), psychoanalysis (13.04%, n=3), family (8.70%, n=2), multicultural (8.70%, n=2), positive (8.70%, n=2), existential (4.35%, n=1), feminist (4.35%,

n=1), interpersonal (4.35%, n=1), rational emotive behavioral (4.35%, n=1), and reality oriented (4.35%, n=1), while some indicated no specific theoretical orientation (17.39%, n=4). Participants also added additional theoretical orientations under 'other' and these additional models included Maudsley (4.17%, n=1), Mindfulness/Buddhist Psychology (4.17%, n=1), trauma informed care (4.17%, n=1), recovery model (4.17%, n=1), and supportive (4.17%, n=1).

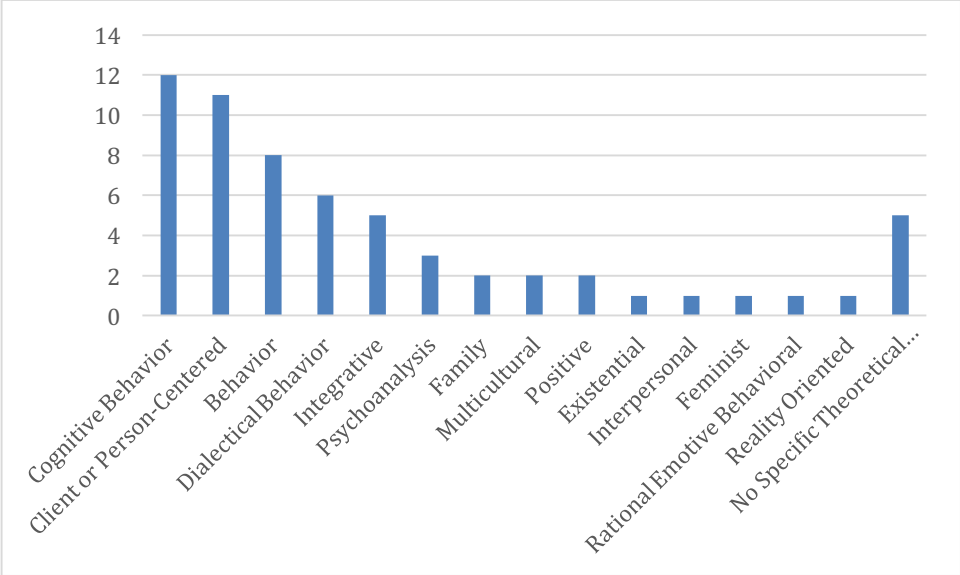

Figure 3. Psychotherapeutic theoretical orientation of participants' facilities.

As a related question, participants identified what percentage of session time was devoted to verbal processing or discussion with the patients during either individual or group sessions, 0-10% (21.74%, n=5), 11-25% (13.04%, n=3), 26-50% (34.78%, n=8), 51-75% (26.09%, n=6), 76-100% (4.35%, n=1).

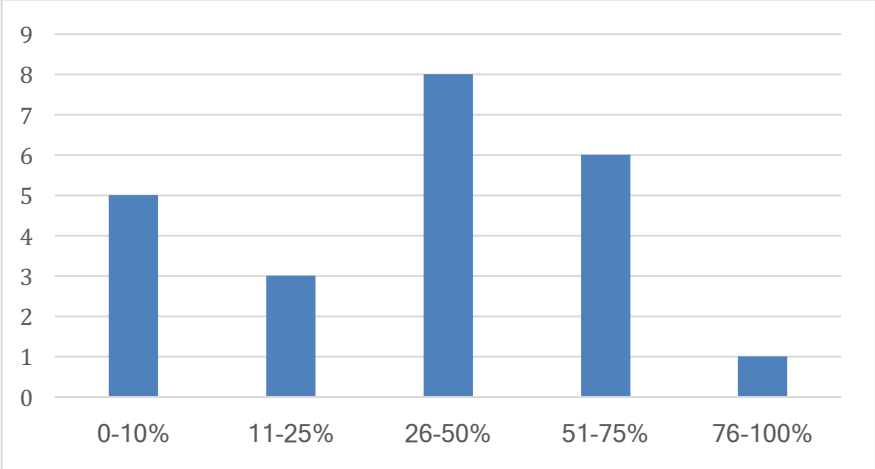

Figure 4. Time spent in discussion and/or verbal processing with clients during music therapy.

The majority of participants, 73.91% (n=17) shared that they facilitate group music therapy sessions for those with eating disorders while 26.09% (n=6) do not provide group sessions. Of those who stated that they do facilitate group sessions, only 16 of the 17 responded to how many they facilitate each week with answers as follows: **ten (62.50%) facilitate 1-5 groups a week**, two (12.50%) facilitated 6-9 groups a week, three (18.75%) facilitate 10-15 and one indicated over 16 groups per week (6.25%, n=1).

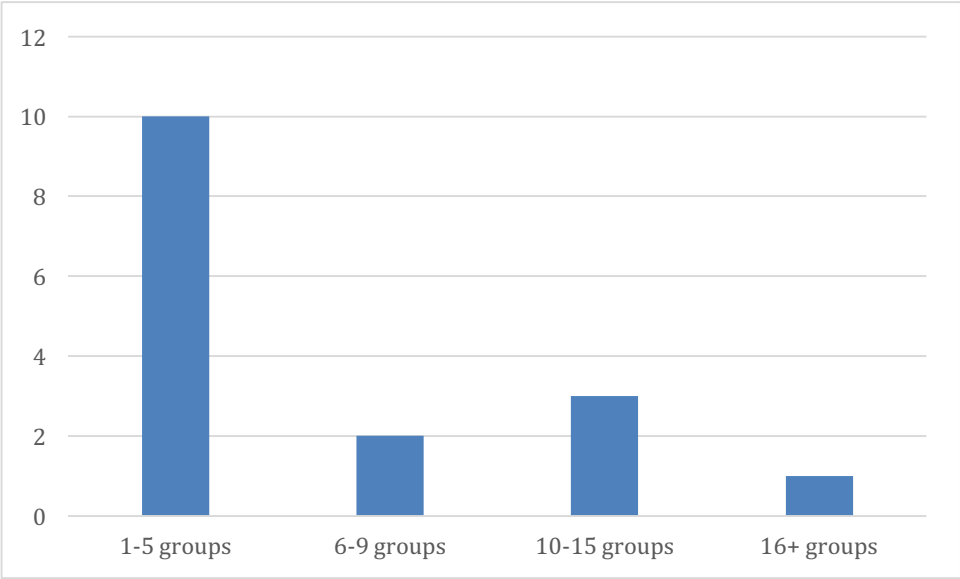

Figure 5. Number of groups facilitated each week.

Participants who facilitated group music therapy sessions identified how large their groups were and they were able indicate more than one group size as appropriate including 2-5 person groups (41.18%, n=7), **6-10 person groups (88.24%, n=15)**, 11-15 person groups (23.53%, n=4) and 16+ (0.0%, n=0). A majority of the 17 participants who facilitate group sessions (88.24%, n=15) identified leading sessions independently while 11.76% (n=2) identified co-leading with another professional. Those who had experience co-leading indicated the opportunity to work with a psychologist (25%, n=1), educator (25%, n=1), or other (50%, n=2). Those who chose 'other' responded with either not applicable and Art Therapist and/or Milieu Counselor. The 'not applicable' response was someone misleading as that response was from a participant who indicated in the previous question that they do not co-lead so it was not necessary for them to indicate N/A here.

Of the 23 participants responding to the survey, 19 (82.61%) stated that they have experience providing individual music therapy services to individuals with eating disorders while four (17.39%) identified that they do not. When asked how many individuals survey participants would see in a week, there was a wide variety of answers with some participants providing numbers and others providing explanations. Ten of the 19 participants (52.63%) indicated seeing anywhere from 1-5 individual patients per week, three (15.79%) identified seeing 6-10 individuals, one saw between 11-15, two (10%) identified seeing between 16-20, with one participant seeing over 21 patients a week for individual sessions. Two participants provided written explanations on how they chose to provide individual sessions but did not give specific numbers. One of these participants shared that "anytime I have a referral for a patient diagnosed with an eating disorder I attempt to see them each day either right before or right after a snack or

meal time," another said "I would facilitate individual sessions with eating disorder patients when admitted to the inpatient unit."

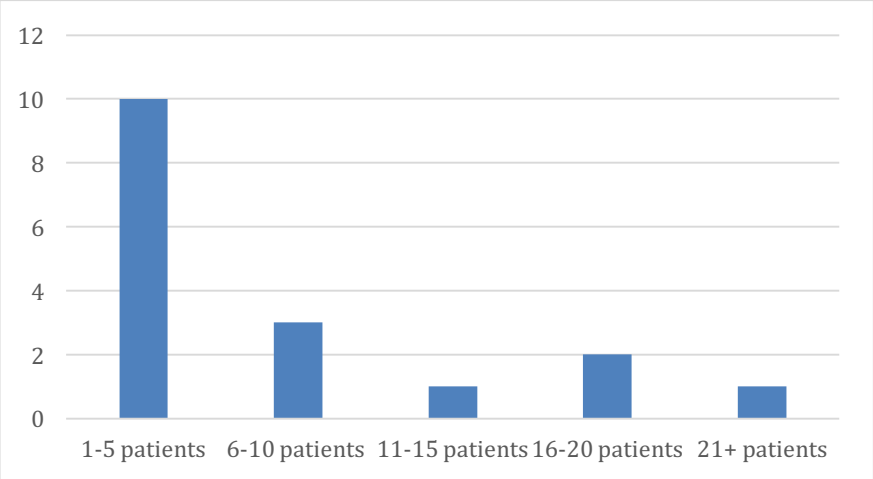

Figure 6. Number of individual sessions facilitated each week.

Participants were then asked to describe how they determine whether an individual participates in group or individual music therapy sessions. Twenty survey participants responded to this question yet three indicated N/A. Some participants stated that all individuals participated in group sessions with individual sessions determined by the team and/or if the individual had a breakthrough during the group session and would benefit from further individualized exploration. Other participants shared that the doctor ordered individual sessions or the individual could request private one-on-one sessions. One participant stated that "primarily, most clients are referred to group programming. If they are deemed inappropriate for group sessions (whether due to safety concerns, interpersonal issues, or other needs) then I will provide individual sessions PRN." Another shared that the decision is made based on "the setting of the facility. Mental health is typically in group sessions (except for special circumstances). Individual is for oncology and private clients." Twelve (54.44%) participants said that their

patients participated in both individual and group music therapy sessions while 10 (45.45%) said their patients did not; one of the 23 participants did not answer this question.

Research Question #3: From a list of goals found in the literature and those added by the music therapists (survey participants), (Survey Questions 20 through 23)

e) What are the most frequent goals addressed in individual and group sessions?

f) By whom and how are they chosen?

Participants were given the opportunity to identify all goals they typically target when working with individuals with eating disorders. Twenty-two of the 23 participants responded to this question. Goals were to increase self-expression (90.91%, n=20), increase emotional expression (90.91%, n=20), increase self-awareness (86.36%, n=19), improve coping skills (77.27%, n=17), decrease anxiety (77.27%, n=17), increase relaxation (72.73%, n=16), self-esteem (68.18%, n=15), interpersonal skills (63.64%, n=14), improve emotion regulation (54.55%, n=12),decrease need for perfectionism (50%, n=11), decrease food anxiety (31.82%, n=7), reduce behaviors that interfere with treatment (31.82%, n=7), decrease life-threatening behavior (27.27%, n=6), with an option for other (4.55%, n=1). The participant who chose ‘other goal’ added the goal area of acceptance due to the related issue of client denial of having an eating disorder.

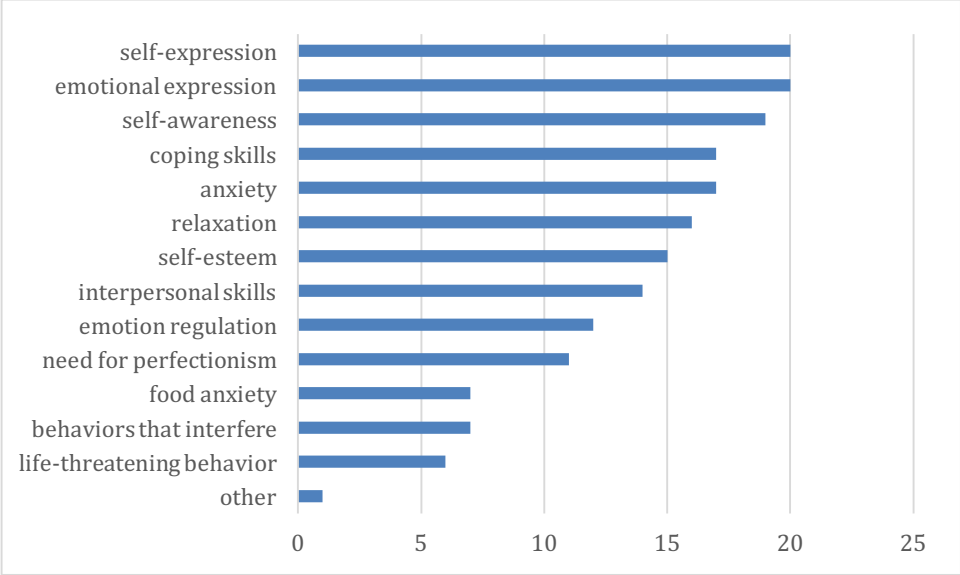

Figure 7. Goals targeted when working with individuals with eating disorders.

Once the participants identified which goals they typically worked on, they were then asked to rank which goals they focused on the most with 1 (most frequent) to 16 (least frequent). They were also able to rank any additional goals they identified in the previous question. If they did not address a listed goal, they were to indicate N/A and to only rank the remaining appropriate goals. Twenty of the twenty-three participants responded to this question with sixteen participants responding to each goal by either ranking or identifying N/A while four participants ranked only the goals they focus on in their sessions. Table 1 displays the top three goals for each ranking with the corresponding number of participants who placed that goal in that ranking. Five participants ranked each goal area including the three optional 'other' goal areas that were intended for those who added goals in the previous question. Those five participants ranked the 'other' goal areas but did not actually write in additional goals. The top three options from each rank were chosen to show the overlap and variability in how participants ranked each goal. There were also a number of goals that 'tied' for some rankings. Many goals

were repeated based on the frequency with which participants placed the goals in certain rankings.

Table 1

Ranking of Goals Most Frequently Used in Sessions

Rank	Goal 1		Goal 2		Goal 3	
1	Emotional expression	5	Coping skills	4	Anxiety	3
2	Decrease anxiety	4	Coping skills	4	Self expression	4
3	Emotional expression	5	Coping skills	4	Self expression	3
4	Self expression	4	Low self-esteem	3	Relaxation	3
5	Self awareness	4	Self expression	3	Perfectionism	2
6	Low self-esteem	6	Emotion regulation	3	Other goal 2	1
7	Interpersonal skills	5	Self awareness	3	Emotion regulation	3
8	Interpersonal skills	4	Perfectionism	3	relaxation	2
9	Perfectionism	3	Interpersonal skills	3	Emotion regulation	2
10	Perfectionism	2	Self awareness	2	Low self-esteem	2
11	Behaviors interfering with treatment	4	Self awareness	2	Life threatening behavior	1
12	Food anxiety	2	Life-threatening behaviors	2	Other goal 1	1
13	Perfectionism	2	Food anxiety	2	Life threatening behavior	2
14	Other goal 1	4	Other goal 3	1	Emotion regulation	1
15	Other goal 2	4	Relaxation	1	Food anxiety	1
16	Other goal 3	4	Anxiety	1	Food anxiety	1
n/a	Other goal 2	9	Other goal 3	9	Other goal 1	8

Participants were asked to describe how they choose goals to address for group sessions. Nineteen participants responded to this survey question yet when examining actual responses, three indicated N/A. Of the 16 who provided responses, four (25.00%) participants identified

choosing group goals from easily generalized goal areas such as improving interpersonal skills and increasing self-awareness. One of these individuals described choosing goals based on "application to all group member's needs [and] accessibility of goal to group." Four (25.00%) shared that their goals were based on clinical decisions from the treatment team. Eight (50.00%) participants discussed the idea of choosing goals based on the overall client/group needs in the moment. One of these participants wrote that s/he chose goals based on "a brief check-in assessment at beginning of group" and another stated choosing goals "based upon who was in group that day and what they needed to address." An additional participant in this group stated that they have a preplanned idea of what to address but it can be "adapted as group presents with various needs."

Participants answered a similar question about how they choose what goals to address in individual sessions. Of the 19 who responded to this question, one participant indicated N/A leaving 18 participants who responded with textual information with some participants listing more than one approach to choosing individual goals so percentages are based on the number of different items listed (21) rather than number of participants. Six statements (28.57%) were related to using prior assessments when choosing goal areas, while 10 (47.62%) were statements based on client need in the moment with one participant in particular writing that they "discuss how the client or patient is doing at the beginning of the session." Two (9.52%) participants discussed basing goals on the client's progress and ability to process and develop insight to inform their goals and where to focus within the session. Two statements (9.52%) were related to creating goals as part of or in response to the treatment team. One participant (4.76%) said they choose individual goals that translate to the wider group goal.

Research Question #4: What music-based interventions do music therapists use to address these specific goals and how do they select specific interventions? (Survey Questions 24 through 27)

Twenty-one of the 23 participants indicated the percentage of interventions in which they used recorded versus live music. Of these 21 respondents, two participants had percentages that did not add up to 100% (80-10 and 10-10 respectively). Of the remaining 19, one indicated 90% recorded/10% live, one 75% recorded/25% live, four 50% recorded/50% live, two 30% recorded/70% live, two 25% recorded/75% live; six 20% recorded/80% live, one 5% recorded/95% live, one only 0.5% recorded and 99.5% live while one indicated using only live music (100%). In averaging these 19, participants use recorded music approximately 32% of the time, and live music 68% of the time.

Participants were asked to identify what music therapy interventions they use to address specific goal areas listed on the survey. Eighteen of the original 23 participants responded to this question. Table 2 indicates what interventions participants use to address which goals. Not every participant addressed every goal or uses every listed intervention. The bolded number indicates the intervention used most frequently to address the corresponding goal. In some cases, it is more than one intervention. Participants were given the opportunity to indicate when 'other' interventions were used to address specific goal areas and four participants offered insight listing: coping-infused dialogue, Mandala drawing Music/Drawing/Narrative, Projective Song Questionnaire, Structured Affective Listening, Personal Imagery Script Creation, and Videos.

Table 2

Music Therapy Interventions used to Address Special Goal Areas

Interventions	Relax/ Imagery	Lyric Analysis	Structured Play	Improvise Play	Song-writing	Move to Music	Other	(Total)
Goals								
Emotional Expression	5	11	10	**15**	**15**	6	0	18
Anxiety	**13**	8	9	8	5	6	2	17
Coping Skills	12	**14**	12	11	12	6	1	17
Self-Expression	2	**13**	11	**13**	**13**	6	1	17
Self-Esteem	7	**13**	12	9	10	5	1	17
Self-Awareness	8	11	9	10	**12**	9	1	16
Relaxation	**16**	2	4	6	1	5	1	16
Emotion Regulation	8	**10**	9	**10**	9	6	1	14
Interpersonal Skills	4	**11**	**11**	9	8	5	1	14
Need for Perfectionism	5	6	**9**	8	8	5	1	13
Life-threatening	4	**8**	4	4	7	3	2	11
Behaviors that Interfere	7	**8**	7	**8**	7	7	1	11
Food Anxiety	7	4	3	4	3	1	1	10
Added Goal (Denial)	0	**1**	0	0	0	0	0	1

Participants described how they choose what music-based interventions to use for a particular goal. Participants identified a variety of ways they chose which interventions to utilize. Of the 17 who responded, twenty-four different approaches were indicated and as such percentages are based on the number of statements not the number of participants., Six statements (25.00%) related to relying on the patient and/or group preference to guide the session and intervention choices with one participant writing “I would select two interventions, and ask which one the group members felt they needed that day. I would also receive feedback from staff.” Those who identified a more patient focused approach included statements (9, 37.50%)

about choosing goals focusing on the needs of the patient and/or patients in the session. One participant wrote that "it depends on the overall needs of the group for that session and what will best achieve the treatment goal set forth. If the group has patients that are more process-oriented, then a songwriting or a lyric analysis may be appropriate whereas if the group is self reporting they are feeling anxious or depressed then possibly a session involving social goals such as improve or instrument playing might be employed." Four statements (16.67%) discussed using prior assessments to choose interventions based on the treatment goals while three (12.50%) described basing interventions off of specific goals. One participant shared that "after choosing a goal, [I] thought about which music-based intervention would best access that goal area based on previous experience, articles, input from other professional." Two described (8.33%) being sure to maintain variety when choosing interventions with one participant stating that "I try to vary the interventions that I use with kids due to wanting to keep their interest as well as increase their overall music awareness."

Participants were asked to identify the goal they addressed with the highest prevalence when working with individuals with eating disorders. Participants wrote these goals into a blank provided. Seventeen participants identified essentially eight goals of increasing self-expression, addressing shame issues, improving coping skills, increasing accurate emotion identification and articulation, improving self-regulation, decreasing anxiety, increasing acceptance of disease/symptoms, and improving emotional regulation. Once goals were identified, participants were asked to identify and describe up to two interventions that they used to work towards the intended goal area. The following table, Table 3, lists the goals and corresponding interventions.

Table 3

Self-identified Goal Areas and Corresponding Interventions

Goal Area	***Interventions***
Increase Self-expression	creative journaling songwriting lyric analysis
Addressing Shame	lyric analysis lyric writing
Improve Coping Skills	structured instrument play drumming affirmations lyric analysis adaptive instrument teaching songwriting/composition improvisation music assisted relaxation creating a relaxation video - relaxation video involves instructing the client "to write a self-help" script. This is approximately a 2 paragraph statement to herself, talking her down from a panic/anxiety attack. This text as then overlayed on an original garage band composition along with images that help the client feel calm. The video was uploaded as an unlisted link to YouTube so the client can use this as needed.
Increase Emotion Identification and Articulation	lyric analysis lyric writing
Improve Self-regulation	structured affective listening directed music imaging
Decrease Anxiety	music relaxation therapeutic drumming free movement dance
Increase Acceptance of Disease/Symptoms	use of the song "Unwell" by Matchbox 20 - lyric analysis followed by a worksheet to help patients
Improve Emotion Regulation	songwriting movement

Research Question #5: **What elements of music (i.e., timbre, dynamics, pitch) do music therapists intentionally alter and what is their clinical rationale, and if known, the research support, behind those decisions? (Survey Questions 30 through 38, as appropriate)**

Participants were asked to indicate the elements of music (e.g. timbre, melody, rhythm) that they alter, in order of importance, based on their previously mentioned goal and to discuss how and why they alter this element of music. Seven participants partially or fully answered the questions pertaining to the adaptation of music elements in their clinical practice. Three participants listed lyrics first in importance of alteration. Participants wrote further about the clinical use of lyrics to "highlight a variety of life themes and experiences" that provide their patients with a space to open up and share their own experiences thus leading to deeper processing. One participant noted that there are multiple books about songwriting and lyric composition which "highlight the emotional connection that people can have to music that relates to personal experience." Three participants listed rhythm as their top element to alter noting that patients enjoy the chance to lead drum circles and its ability to display different emotions. No literature support was provided for the use of rhythm. Two participants listed style as their top priority with one participant noting the importance of using patient preferred music and the other focused on the emotional qualities that can be found in classical music when writing about supporting clinical rationales. For literature support, one participant noted the books *Receptive Methods in Music Therapy* by Grocke and Wigram (2006) and *Emotional Processes in Music Therapy* by Pellitteri (2009).

Other elements listed as second and third priorities were tempo, form, melody, dynamics, and timbre. To further examine the breakdown of participant responses regarding clinical rationale and/or literature support to inform their decisions refer to Table 3. Participants provided

a variety of literature support ranging from specific book titles to mention of knowledge they had read or learned previously but with no specific books or papers to cite. Rhythm, form, and timbre had no literature support cited by participants.

Table 4

Adaptation of Music Elements in Clinical Practice

Elements	Clinical Rationale	Literature Support
Lyrics	• Choosing lyrics that reflect situational emotion • I choose song lyrics that highlight a variety of life themes and experience so that in a group setting clients can identify or relate to multiple elements of the music and practice appropriately sharing their experience with others • appropriate for the client to relate • When using music therapy with clients of vast age ranges and clinical diagnosis in the behavioral health field, the use of lyric analysis has become a strong starting point to deeper processing groups where more tailored interventions and individual groups can be facilitated	• multiple books on songwriting and lyric composition highlight the emotional connection that people can have to music that relates to personal experience.
Rhythm	• How simple or complex of a rhythm the client chooses; ability to keep a steady rhythm • Many patients in my work environment enjoy the stimulation of drumming as well as the ability to use social skills in leading a drum circle without having to feel singled out in a group discussion format • Accessible way to differentiate emotions for discussion; keeps group grounded and together; something pts can use with or without access to instruments after discharge	
Style	• For structured affective listening, I often present pre-selected pieces of classical music with varying elements, in order to depict varying emotional qualities, allowing the group members to experience and respond to different musically induced	• Receptive Methods in Music Therapy by Grocke and Wigram; Emotional Processes in Music Therapy by Pellitteri

	emotional states. • I use the patient's preferred music, typically in it's original form (i.e., album recording) as the client has strong music preferences and is very moved by her preferred music.	• Patient preferred music is the most effective for decreasing anxiety, thus the ability to engage in coping-related conversation.
Melody	• In choosing songs to use for Lyric Analysis, I specifically select those that have a unique and thoughtful melody so that clients are given the opportunity to identify what about the melody expresses emotion. • Songwriting has proven extremely effective with children and teenage clients in the behavioral health center where I work so using melody to garner a patient's attention and then allowing them to express their emotions within that familiar structure has allowed them to share feelings and emotions that may not have been shared using other interventions.	• NMT training institute: our brains respond more significantly to varied melodies.
Tempo	• For directed music imaging, I will begin with a relaxation induction, gradually decreasing both the tempo and overall dynamics in order to facilitate a transition into a more calm/regulated state.	• Receptive Methods in Music Therapy by Grocke and Wigram
Form	• easy for the patient to be successful and feel good about what they wrote in relation to songwriting	
Dynamics	• I choose songs for Lyric Analysis that contain varying dynamics so that clients are challenged to identify how dynamics support the expression of emotion. • Accessible way to differentiate emotions for discussion; keeps group grounded and together; something pts can use with or without access to instruments after discharge • For directed music imaging, I will begin with a relaxation induction, gradually decreasing both the tempo and overall dynamics in order to facilitate a transition into a more calm/regulated state.	• NMT literature and research, our brains respond with more activity to strong changes in music, and this is seen most vibrantly through obvious dynamic changes. • Receptive Methods in Music Therapy by Grocke and Wigram
Timbre	• opportunity for pts to 'personalize' their non- or extra-verbal expressions	

Chapter 5

Discussion

The purpose of this study was to determine common treatment goals and subsequent music-based interventions used by music therapists who have experience working with individuals with eating disorders and to begin gathering data on the intentional adaptation of the elements of music commonly used to increase success of these treatment outcomes. In this chapter, the researcher provides an overview of survey participant demographics, describes the context of where and how their services with individuals with eating disorders are provided, demonstrates prevalent goals addressed with these clients and subsequent music-based interventions, and discusses the specific adaptation of musical elements during these music-based interventions. Furthermore, this chapter will discuss limitations, future research, and clinical implications.

Demographics

A series of questions were asked of survey respondents to determine what are the demographics of therapists and their patients with eating disorders. In this survey, only two (8.70%) of the twenty-three participants indicated they worked full time with people with eating disorders. This statistic is somewhat similar to Bobilin's (2008) survey addressing eating disorders where only 4-8% of the 36 respondents worked primarily with individuals with eating disorders. The two most common locations where respondents worked with individuals with eating disorders were medical hospitals and psychiatric hospitals but specifications were not made in the survey to determine whether the psychiatric hospital was strictly inpatient or not. Lejonclou and Trondalen (2009) saw their individuals both in an inpatient and outpatient capacity within a psychiatric hospital setting while Hilliard's (2001) group sessions were

conducted in an eating disorder facility with those who were admitted to inpatient treatment. Both Beach (2014) and Bobilin (2008) found that most of their participants treated people with eating disorders in psychiatric hospitals. Further, this researcher found that the majority of participants who did not work full time with eating disorders only spent 1-5% of their caseload working with this population. This suggests that music therapy perhaps plays a broader and more diverse role in general psychiatric hospitals and medical hospitals as opposed to specialized facilities designed to treat individuals with eating disorders.

Participants identified that the age range they worked with most frequently was 13 to 17 (60.87%) year olds followed by those between 18 and 30 (21.74%). The most frequently treated age range coincides with a study conducted by Micali, Hagberg, Petersen, and Treasure (2013) who reported that the average age of onset for an eating disorder for women was 15-19 years old. Males varied a bit with average onset of anorexia nervosa at 15-19 years old, 10-14 years old for eating disorder not otherwise specified and 20-29 for bulimia nervosa.

When asked what theoretical orientation participants' facilities aligned with, 50% identified aligning with CBT, followed by client or person-centered therapy, behavior therapy, then DBT. This differs from Bobilin (2008) who found those surveyed aligned more with a psychodynamic framework followed by eclectic, humanistic, and cognitive theory. This could suggest a change in preference for facilities over the last eight years as theories such as CBT have become more mainstream. Changes in insurance and reimbursement may also be a reason for the increase in CBT preference because of its time-limited, skills focused approach. While respondents for this current survey and Bobilin's aligned with different theoretical orientations, there is overlap in what each therapy intends to accomplish. Moreno (1998) describes the goal of psychodynamic theory in the context of eating disorders to help patients recognize and explain experiences that

triggered the eating disorder behavior A therapist aligned with CBT will work with individuals to discover unhealthy relationships between thoughts, feelings, beliefs, and behaviors working on the assumption that change in one area can lead to change in the other areas (Corey, 2016). They then work to change these patterns of thought and behavior. CBT also has been shown to be an effective form of treatment for many mental illnesses including anxiety disorders, depression, bipolar disorder, schizophrenia, and eating disorders (Byrne, Fursland, Allen, & Watson, 2011; Chen et al., 2003; Cristea, Huibers, David, Hollon, Andersson, & Cuijpers, 2015; Dedman, Numa, & Wakeling, 1998; Nowakowski, Rowa, Antony, & McCabe, 2016;Patelis-Solis et al, 2001; Peris, et al, 2015; Turkington, Kingdon, & Weiden, 2006). Due to the fact that CBT has been found to treat and aid in so many mental illnesses and its time-limited, psychoeducational, goal-focused approach, it is understandable that it would be the most common theoretical orientation indicated in this survey considering the majority of participants worked in general psychiatric and hospital settings where multiple ailments are treated together.

Clinical Practice

Participants answered questions about their clinical experiences working with people with eating disorders. Participants identified if they provided group or individual music therapy services, noted group size if applicable, discussed amount of sessions (group and/or individual) each week, demonstrated how decisions were made about session type placement (group or individual), established how much time in sessions was typically devoted to verbal processing, and shared if they provided services alone or co-treated with another professional.

A majority of participants identified that they provide both group and individual sessions with six participants (26.09%) stating they only provide music therapy services in individual sessions and four (17.39%) stating they only provide services in group sessions. In the music

therapy and eating disorder literature, there is a mix of studies describing group or individual session formats. Hilliard's (2001) research focused specifically on group music therapy using Cognitive Behavior Therapy protocol while Lejonclou and Trondalen (2009) discussed their experiences working with individuals with eating disorders in a one-on-one setting. Survey participants who facilitated group music therapy sessions identified the general number of individuals who participated in group sessions. A majority of participants identified working with six to ten people per group (88.24%, n=15) followed by two to five people per group (41.18%, n=17). While there is no explicit research looking at the optimum number of participants in a group music therapy session, research conducted with groups appears to contain a similar number of participants. Researchers who indicated their group sizes showed a range of individuals attending group music therapy. Bibb, Castle, and Newton (2016) had the smallest groups ranging from two to five individuals at a time. Gardstrom, Bartkowski, Willenbrink, and Distelkamp (2013) conducted groups ranging from six to thirteen, Grocke et al. (2014) found that their groups ranged from three to eleven individuals with a mean size of 5.4 per group, while Gardstrom and Distelkamp (2013) had the largest range of six to sixteen individuals per group. Overall, these data are consistent with the group sizes estimated by the participants of this study. The reason for such variability could be due to admittance numbers, whether attendance is mandatory or optional, and other therapy requirements that coincide with planned group music therapy sessions.

The primary ways participants chose if patients received group or individual music therapy services was either by individual therapists independently deciding if patients would benefit from one on one services (25%) or through a team decision (20%). The majority of those who provided both group and individual services stated that groups were offered or required for

all patients and then individual sessions were determined either by the treatment team or the medical doctor. Two participants noted that individual sessions were only offered to those who were unable to participate in group sessions due to safety concerns or interpersonal issues. A possible reason why group therapy is more available than individual therapy could be due to the cost effectiveness of group therapy (Chen et al., 2003; Dedman, Numa, & Wakeling, 1988; Kettlewell et al., 1992; Lloyd, Fleming, Schmidt, & Tchanturia, 2014; Openshaw, Waller, & Sperlinger, 2004; Polnay, James, Hodges, Murray, Munro, & Lawrie, 2014). Individual music therapy sessions would then only be provided to those who the team or MD believed could benefit the most.

Of the six participants who stated they did not provide group music therapy to individuals with eating disorders, four worked in medical hospitals and two worked in private practice or at a university clinic. Due to these six participants work in areas where group therapy may be rare or difficult to maintain it may be understandable why they only provide individual session. Music therapists working in the medical setting often work with patients individually due to their compromised immune systems and erratic schedules for necessary medical procedures and participants who served in private practice or university clinics are often individually contracting for such services.

Goals

Participants were asked to answer survey questions about the various goals they focused on with individuals with eating disorders. The goals were extracted from literature on treating eating disorders. One question asked them to check all the goals they typically targeted when working with individuals with eating disorders (Figure 7) and participants were then provided spaces to fill in other goals. Participants were then asked to rank the goal areas from 1 (most

frequently addressed) to 16 (least frequently addressed). The final question under the survey section on goals looked to understand how participants chose what goals to focus on in their work with people with eating disorders.

Participants ranked their most common goal areas with the top five including increasing self expression, increasing emotional expression, improving coping skills, improving self awareness, and decreasing anxiety. Just as 'increasing self-expression' was the number one ranked goal choice of participants, it was also the most frequently noted goal found in the research literature with Hilliard (2001), Lejonclou and Trondalen (2009), McFerran et al. (2006), and Punch (2016) all referring to using this goal in their treatment of individuals with eating disorders. This does differ from Bobilin's (2008) findings where the goals were "to gain more awareness of the eating disorder, to identify cognitive distortions underlying the disorder, and to provide an outlet for emotional expression" (p. 147). The variation in top goal areas could have to do with the way each survey was set up to receive answers. Bobilin's (2008) study did not explain how data were collected about the goal areas used by the participants. This researcher's survey provided participants with goal areas found in previous research about eating disorders.

The researcher found the most frequently cited ways of choosing goals for group and/or individual sessions were treatment team decisions, in the moment decisions based on how the group presented at the beginning of the session, and prior assessment. It is important to note that while some participants discussed using prior assessment, they did not explain if they were conducting formal or informal assessments or if they were using a standardized assessment tool. Music therapists are taught to assess clients and/or patients before beginning treatment. Assessments differ based on the population and location of treatment but are expected to be valid and reliable (Douglass, 2006). Hilliard (2001) noted using an informal assessment of afternoon

clinical reports submitted by other therapists working with his patients. In medical and psychiatric settings, assessments are sometimes more informal due to the need to assess and treat people who could be discharged at any moment. Within the music therapy and eating disorder research, Hilliard was the only researcher to note how he assessed his patients. Other research examined focused heavily on the interventions and goal areas but did not implicitly state how therapists/researchers concluded that these were the appropriate goal areas that needed attention.

Interventions

Participants were asked to answer a number of questions about the music-based interventions they used with individuals with eating disorders. The researcher was interested in ascertaining the percentage of the interventions that used recorded vs. live music and to determine what music therapy interventions were used to address specific goal areas (see Table 2). Participants were asked to check all interventions they use to address each goal area and were given space to add additional interventions not provided on the survey from the literature. Participants were further asked to describe how they made the choice for what music-based intervention(s) to address particular goals. The final question in this section was interested in the most prevalent interventions participants used to address a goal area. Participants were asked to select a goal area and then given the opportunity to write in up to two additional interventions they used to address that goal. The full account of goal areas and interventions can be found in Table 3 of the results section.

Participants indicated what percentage of interventions utilized live versus recorded music. By knowing how frequently live or recorded music was used in sessions, a general understanding could be gained of how active or passive were the interventions. Using recorded music can sometimes be assumed to be associated with listening exercises that are more passive

while live music can include group music making interventions that are more active. There is also the assumption that it would be easier to manipulate the elements of music in live versus recorded music to maximize the therapeutic function of the music to reach targeted treatment outcomes. The average of all participant's answers comparing percentages of using live to recorded music was 68% of sessions using live music to 32% of sessions using recorded music. Thirteen of the nineteen participants used live music more than recorded music. Music therapy education puts an emphasis on using live music in sessions that may account for a majority of participants using live music in sessions over recorded music. Recorded music may be used to present songs that cannot be recreated effectively through a live performance. Currently, there is not abundant literature on the effects of live versus recorded music in the psychiatric setting or with individuals with eating disorders but there is research on the impact of live music in the hospital setting (Arnon et al., 2006, Garunkstiene, Buinauskiene, Uloziene, & Markunien, 2014, Walworth, Rumana, Nguyen, Jarred, 2008).

Music therapists use various interventions to meet diverse goal areas, with more than one goal area able to be addressed through each intervention. Music relaxation/imagery is an intervention that may use either live or recorded music perhaps with the addition of a script guiding patients through various relaxation techniques. Justice (1994) notes that the music used in relaxation is the grounding force within music guided relaxation and must take a prominent role rather than used solely as background music. Relaxation techniques may include progressive muscle relaxation, the Bonny method of guided imagery, and meditation. Music relaxation/imagery was the top choice for music therapists when focusing on the goal areas of decreasing food anxiety, decreasing anxiety (generalized), and increasing relaxation. Using music relaxation/imagery to reach these goal areas further reinforces the concept that music

relaxation/imagery provides patients with opportunities to practice self-regulation for coping in stressful situations (Justice, 1994). Based on this intent, the selected intervention (i.e., music relaxation/imagery) is a logical choice for these goal areas chosen by the participants.

Lyric analysis is the examination of the elements of a song to guide discussion (Dvorak, 2016). While lyrics can be considered the most important element when presenting a lyric analysis intervention, it is important to recognize that the other elements of music (i.e. tempo, melody…) can affect the way patients/clients perceive the music and lyrics (Dvorak, 2016). Lyric analysis was a top intervention choice for improving coping skills, increasing self-expression, improving emotion regulation, increasing interpersonal skills, improving self-esteem, decreasing life threatening behavior, increasing acceptance, and decreasing behaviors that interfere with treatment. Lyric analysis may be a top choice for a large number of interventions due to its adaptability. Songs can be chosen based on situations, emotions, and experiences, with inherent music elements, such as lyrics, helping patients relate to the content. Lyric analysis natural encourages verbal processing of the song which should then translate to the patient processing how the song resonates with them. The processing aspect of lyric analysis is another reason this intervention is so common in the mental health setting.

Improvisational instrument play is the use of a variety of instruments to create a musical product either between the music therapist and the individual or as a group. Improvisational instrument play has the potential to look similar to a group drumming based on the instruments chosen and the rhythmic grounding patterns used to lead the group (Justice, 1994). Erkkilä et al (2011) found that improvisational instrument play decreased depressive symptoms and improve functioning in adults with depression. This intervention was a top choice for the goals of increasing emotional expression, increasing self-expression, improving emotion regulation, and

decreasing behaviors that interfere with treatment. Improvisational instrument play can be helpful reaching these goal areas due to its ability to facilitate expression without requiring extensive talking or discussion and the opportunities to manipulate the elements of music to impact specific treatment outcomes. Those who struggle to open up verbally may find improvisational instrument play to serve to release emotions they struggle to express (Justice, 1994; Nolan, 1989). A goal area that was not a primary goal indicated for this intervention was decreasing perfectionism which can be addressed through this intervention because it may drive the patient to move past his/her need for rules and order (Justice, 1994; Bobilin, 2008). Bobilin's (2008) research found that music therapist's preferred to provide as little structure to improvisational instrument play for clients in order to encourage patient's to take more responsibility for the musical product.

Structured instrument play is a re-creative intervention that uses instruments to create a predetermined musical product (Bruscia, 2014). Structured instrument play is similar to improvisational instrument play in the sense that multiple instruments are used but more rules are applied to help guide patients through the music making process. Bruscia (2014) discusses how re-creative, structured instrument play can best help patients/clients who "need to understand and adapt to the ideas and feelings of others while still retaining their own identity" (p.133). Bobilin's (2008) research found that music therapist's often provided more structure for patients who were more immersed in their eating disorder to provide a safe space within the music. Participants noted using structured instrument play to focus on decreasing the need for perfectionism and improving interpersonal skills.

Songwriting is an intervention that encourages the patient or patients to create their own song. Songwriting provides ample opportunities for the patient to make decisions. Songwriting

was noted as a common intervention for increasing emotional expression, increasing self-expression, and increasing self-awareness. Due to the collaborative nature of songwriting between the music therapist and the individual or group, songwriting is a live music intervention that culminates in the development of a song through an interactive process (Baker, 2013). The song can either be an original composition with the patient or patients having complete control of the lyrics, instrumentation, and timbre of the song or it can be a piggyback of another song already familiar to the patient/s. McFerran, Baker, Patton, and Sawyer (2006) found that discussion topics not covered in talk therapy sessions were expressed within songwriting activities in adolescents with eating disorders.

With such a wide variety of interventions and ways those interventions can impact different goals, survey participants were then asked to describe how they chose which interventions to use to address a goal. Participants were given the opportunity to identify a goal of their choosing. The majority of participants noted using interventions that were preferred by the patient or that would best fit the individual's or group's functioning level/levels and needs. Focusing on interventions that an individual or group prefers may encourage more interest and engagement in the intervention and therapeutic process. One study found that there was a positive correlation between increased relaxation and individual preference and familiarity of the music used in that intervention (Tan, Yowler, Super, & Fratianne, 2012). Another study discovered that preferred music decreased anticipatory anxiety and increased relaxation in patients in the burn unit (Ghezeljeh, Ardebili, Farii, & Haghani, 2017). Even though relaxation is not the main goal for each intervention, choosing familiar music or even interventions may provide individuals with a feeling of normality and comfort that can allow them to relax and

possibly lead to improved communication and openness leading to acceptance and imperative skills needed for recovery.

Therapeutic Functions of Music

The final section of the survey asked the participants to answer questions about how they alter the elements of music to meet their targeted goals. This section asked participants to choose a goal area then describe up to two interventions that they use to reach this goal. Once the goals and interventions were identified, participants were then asked to choose which elements of music they do/did alter to improve the therapeutic function of the music and were given space to provide both clinical and literature support as applicable and available. The ability to modify music and musical experiences and know the importance of that modification is one thing that truly sets music therapists apart from other therapies that utilize music in their practice.

Hanson-Abromeit (2013) describes the therapeutic functions of music as "the direct relationship between the treatment goal and the explicit characteristics of the musical elements, informed by a theoretical framework and/or philosophical paradigm in the context of a client" (p. 130-131). This section of the survey was the most frequently skipped section perhaps due to the open-ended and possibly time-consuming aspect of this question. The large number of participants who dropped out during this section also raises questions about how many clinicians are actively thinking about the elements of music when preparing their sessions and choosing music and interventions to address therapeutic outcomes. Participants were asked to choose an element of music that they altered then explain their reason for altering that element of music and provide broad or specific research-based reasons for the change if possible.

Lyrics were the most frequently chosen element to adapt. Hanson-Abromeit (2015) describes lyrics as "words created or used from others in music for communicable expression."

Three participants listed lyrics as their top element to alter with one participant listing it as their second most frequently adapted element. Participants explained they adapted lyrics by focusing on the lyrical content of song choices to ensure that they are relatable to the patients. Participants wrote about their choice of adapting lyrics in the context of lyric analysis and finding appropriate lyrics but they did not clearly express how they adapt this element by either modifying lyrics through omission or rewriting phrases to better fit situations and guide further discussion. One participant provided broad literature support writing that they use "multiple books on songwriting and lyric composition to highlight the emotional connection that people can have to music that relates to personal experience." Lyrics are commonly used to spur discussion and help patients relate to the music and each other in music therapy sessions for people with mental health needs. For this reason, it is not surprising that this was the most commonly adapted musical element identified by participants. Hilliard (2001) discussed using lyric analysis for his patients who were farther along in their recovery to encourage higher levels of cognitive processing.

The second most frequent element choice was rhythm with three participants choosing it as the main element to adapt and one choosing it as his/her third most common element to adapt. Rhythm is defined as "a pattern of regular/irregular pulses caused in music by the occurrences of strong and weak melodic and harmonic beats" (Hanson-Abromeit, 2015). Participants discussed adapting rhythm in the context of drumming. Two participants wrote about rhythms being adapted by the patients themselves while an additional participant elaborated further specifying that the patients adapted the rhythms while working on social and leadership skills. The participant noted that patients have the opportunity to work on social skills by "leading a drum circle without having to feel singled out in a group discussion format." Another participant

wrote about adapting rhythm as a way to help patients access different emotions to later discuss. One who noted rhythm as the top altered element wrote about the individual's control over the rhythm within a songwriting intervention which may provide the individual with more autonomy over what s/he is trying to express and can further self-expression. It is interesting to note that all of the rhythm explanations involve specific instrumentation (drum) and elaborate on how the patients can use rhythm and drumming to express themselves yet the participants do not explain how they alter the rhythm in these experiences to help guide or lead the patients at any point. No literature support was specified by any of the participants who wrote about adapting rhythm to fit their goal areas. A lack of literature support could be due to the fact that even though drum proficiency is expected, music therapy focused drumming classes are not required in every music therapy program (Scheffel & Matney, 2014). Participants also may have struggled to remember specific literature support but could remember the general concepts learned through their formal education and on-the-job training.

Style is described as how the musical product is expressed either through genre, period, or form (Hanson-Abromeit, 2015). This was the third most common musical element to adapt, identified by two participants as the top element to modify in a session. Participants wrote about adapting style to fit the patient's preferred style/genre of music and using the recording of the patient's preferred song to stay true to the original version and choosing classical pieces to encourage patients to "experience and respond to different musically induced emotional states." Literature support included a broad statement explaining that "patient preferred music is the most effective for decreasing anxiety, thus the ability to engage in coping-related conversation" and another citing Receptive Methods in Music Therapy by Grocke and Wigram (2006) and Emotional Processes in Music Therapy by Pellitteri (2009) as sources guiding this participant's

decisions on choosing and adapting musical styles. Again, it is important to recognize that both participants discussed the element of style but not how to adapt this element.

While these participants appear to bring up an interesting question about the importance of providing patients with preferred music or not, the choice must be based off the goal and needs of the patient. When encouraging discussion, as one participant wanted to do, patient preferred music may provide an immediate deeper connection and emotional reaction to the song. Tan, Yowler, Super, and Fratianne (2012) found that music that was familiar and preferred by their subjects led to increased relaxation states that is critical within hospital settings. Yet, if the goal of the music is to provide patients with the opportunity to experience different emotional states, unfamiliar music that has no previous memories or emotions tied to it, may be the best choice stylistically for the intervention.

Two participants chose melody as their second most noted element to modify and described it as being adapted in the context of two different interventions. Hanson-Abromeit (2015) describes melody as a "succession of tones in musical compositions that are distinguished from the harmony and rhythm that is the principle part in a composition." One participant noted choosing songs with varied melodies to use for lyric analysis as this provides further opportunities for participants to analyze not only the lyrics but also the melodic form and how it expresses emotion as well. The second participant wrote about adapting melody in the context of songwriting as a way to garner the patient's attention and then allowing the participant "to express their emotions within the familiar structure." Literature support mentioned by participants for melody came from NMT training about how "our brains respond more significantly to varied melodies." Melody was listed in conjunction with songwriting and lyric analysis interventions. Melody plays a key role in creating music both with and without lyrics.

When working with individuals to write songs, giving them control of the melody allows them more control over the song and provides another layer of self-expression. Melody also provides the individual with a way to further clarify their emotions or the emotions behind the words they wrote for the song.

One participant wrote about choosing songs with varying dynamics for patients to listen to for lyric analysis. The participant utilized the varying of dynamics for further discussion about how the use of dynamics "support the expression of emotion." Another participant noted changing the dynamics in relation to the tempo when utilizing the iso-principle to help patients "transition into a more calm/regulated state." Participants cited using neurologic music therapy (NMT) literature about how people's brains "respond with more activity to strong changes in music, and this is seen most vibrantly through obvious dynamic changes" and the book Receptive Methods in Music Therapy by Grocke and Wigram (2006). Dynamics were discussed in the context of structured affective listening/music imaging, songwriting, lyric analysis, and instrument play. These listed contexts show the variety of ways dynamics can come into play within a session either through recorded music where the therapist must be aware of the dynamic changes prior to bringing in the song as well as how the therapist or the individuals can alter the dynamics within a live music creation to express thoughts and feelings.

Tempo, form, and timbre were all chosen as musical elements to adapt by individual participants. Tempo is the "rate of speed of music by reference of metronome" (Hanson-Abromeit, 2015). It was adapted in the context of directed music imaging and utilizing the iso-principle by slowing the tempo to move the patient into a relaxed state. This participant adequately explained how they altered the tempo of music continuously from a faster tempo to a slower tempo to have a positive effect on the patient's state. The participant noted the book

Receptive Methods in Music Therapy by Grocke and Wigram (2006) as literature support for tempo.

The next element was form, which is the "manner of style of arranging and coordinating parts for a pleasing or effective result (Hanson-Abromeit, 2015). The participant who cited form wrote about adapting form in the context of songwriting to use easy forms that allow for patients to feel successful and proud of what they have composed. While the participant did not elaborate on what easy musical forms they used to increase success in songwriting or explain how they altered the form for individuals; this explanation provided initial insight into how participants utilize form in their practice.

Timbre, "the characteristic quality of sound produced by a particular instrument; tone color" (Hanson-Abromeit, 2015), was the final element discussed by the participants. The one participant who cited adapting timbre, described adapting timbre in a way to allow patients to personalize their "non- or extra-verbal expressions" within the patient created music. Again, this response discussed how the patients can use this element to express themselves but the participant did not explain how they alter this element as the music therapist. Things to think about with timbre include the instruments the clinician offers for the patient to play and what emotional states they can represent or express. Being aware of the timbre of the instruments provided in relation to the patient's goal area can determine how the success of an intervention.

The lower response-rate for tempo, form, and timbre suggest that these musical elements fall lower on the ranking of what music therapists determine to modify for goals. These could also be less chosen elements in the survey due to the goals that the participants chose to write about and these musical elements were either less important to adapt or overlooked in the context of the goal and intervention.

Future Research

There were questions that the researcher did not ask that could be important to include and analyze in future studies. These questions include participants' education level, any additional training they have received, and if this training informs their clinical decisions. Knowing these two facts about the participants could change the way participants create goals and interventions.

As a result of the outcomes of this survey, the researcher is particularly interested in the therapeutic function of music within the context of music therapy with individuals with eating disorders. Future research could examine what musical training music therapists or student music therapists are receiving in understanding how and why they should alter the various elements of music for their patients/clients. Further research should focus on better understanding the definition of each music elements, how and why they are adapted using current research support and clinical wisdom garnered from academic training and clinical experience. An examination of adaptation of the music elements within a more structured context of specific goals and corresponding interventions is warranted.

Further, this research brought up questions about the use of live or recorded music specifically in the psychiatric setting. Studying how and why clinicians choose to present live or recorded music and what goals or interventions are commonly associated with either forms of music. Looking deeper into live or recorded music also begs questions of what, if any, patient preference there is for how they interact with music in a psychiatric session. In the psychiatric setting, further looking at both the success rate of interventions, how clinicians define successful interventions, and patients perceptions of various interventions could garner valuable insight into clinical treatment.

Also, the researcher would be interested in examining how people respond to varied musical elements in both familiar and unfamiliar music to better understand how those alterations within those two different contexts (familiar or unfamiliar) are impacting clients' outcomes in either their behavior, mood states, or cognitive levels. In terms of music therapy research specifically focused on individuals with eating disorders, there is limited research on how and if people with eating disorders respond to music therapy interventions differently than individuals with other mental illnesses and could be examined in future intervention-based research.

Limitations

The survey had a response rate of only 3.8%. It is possible that the survey was erroneously sent to music therapists who possibly had no experience working with people with eating disorders. This low response rate could also have been impacted by the length of the survey and/or the addition of fill in the blank questions. This researcher's choice to request emails of clinicians who were members of AMTA instead of the Certification Board of Music Therapists (CBMT), music therapists who are not members of AMTA but are members of CBMT were not included in the survey possibly omitting responses from clinicians with experience with eating disorders.

In the context of questions within the survey, this researcher's choice to create a list of goals based off previous music therapy and eating disorder research potentially left out other common goal areas that are not discussed in current research. If all goal areas had been asked in an open-ended question format a larger variety of goal areas may have been discovered. This researchers previous and limited experience working with eating disorders also played into the way goal areas were discussed due to working on goals worded in the same context of the

research. Removing all the demographic questions may have improved response rate by decreasing the number of questions the participants had to answer. Majority of participants skipped the section discussing the therapeutic functions of music making it difficult to find any specific connections between altering the elements of music and goal areas. If this research were to be repeated, this researcher would alter the questions about literature support to one question about what, if any, literature the participants are reading in their clinical practice. The question would look into what type of literature participants seek out (i.e. intervention or population based research) and if these topics ever discuss the elements of music. The researcher would also be sure to include definitions of each element of music to ensure that participants understand what definitions the researcher is working with to help them better answer the questions.

Clinical Implications and Conclusions

For those interested in working or currently working with individuals with eating disorders, this research provides some insight as to where most music therapists treat this population and what goals they are addressing through the use of music-based interventions. It also provides clinicians and students with some possibly new, unique interventions that their colleagues are using. This research shows that current clinicians are not thinking critically about adapting the elements of music in their practice. The participants displayed an understanding of the elements and what they are but were unable to expand on how they personally altered them. Based on this disconnect, the researcher hopes that this research provides possible introspection for those reading this document to think about how they alter the musical elements in their own practice either intentionally or unintentionally to best address clinical outcomes through music-based interventions. To set us apart from those that use music as an addendum in other professions, the explicit focus on the therapeutic function of music must be consequential to our

practice. The intentional adaptation of music elements in music-based interventions supported by clinical wisdom and research literature differentiates us as music therapists.

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Appendix

Survey

Music Therapy with Individuals with Eating Disorders

Information Statement

Information Statement

The department of Music Education and Music Therapy at the University of Kansas supports the practice of protection for human subjects participating in research. The following information is provided for you the decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty. Your name is being used with the permission of the American Music Therapy Association following its review of this study.

We are conducting this study to determine common treatment goals and subsequent music-based interventions used by music therapists currently working with patients with eating disorders and to begin gathering information on the intentional adaptation of the elements of music to increase success of these treatment outcomes. Further, the intent of this survey is to provide a synthesis and overview of current clinical practice and wisdom useful to students and clinical music therapists interested in working with this population or those interested in conducting intervention-based research to determine the impact of music-based interventions on the needs of individuals with eating disorders. This will entail your completion of a survey. Your participation is expected to take approximately 30 minutes to complete. The content of the survey should cause no more discomfort than you would experience in your everyday life.

Although participation may not benefit you directly, we believe that the information obtained from this study will help clinicians in the field, students training to be music therapists, and research in this clinical area. Your participation is solicited, although strictly voluntary. Your name will not be associated in any way with the research findings. It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may see your response.

If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone or email. Completion of the survey indicates your willingness to take part in this study and that you are at least 18 years old. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email irb@ku.edu.

Sincerely,

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Music Therapy with Individuals with Eating Disorders

Demographics and Experience Working with Individuals with Eating Disorders

1. You currently live in which AMTA region or area?

- ○ Midwest
- ○ Great Lakes
- ○ Mid-Atlantic
- ○ New England
- ○ Southwestern
- ○ International Member
- ○ Western
- ○ Southeastern

2. How long have you worked or did you work with individuals with eating disorders?

- ○ Less than 5 years
- ○ 11-15 years
- ○ 21-25 years
- ○ 5-10 years
- ○ 16-20 years
- ○ More than 25 years

3. In what setting do or did you work with this population?

- ○ Private Practice
- ○ Psychiatric Hospital
- ○ Eating Disorder Recovery Center
- ○ Medical Hospital
- ○ Mental Health Facility
- ○ Other (please specify)

4. Do/did you or your facility align with a specific psychotherapeutic theoretical orientation? Check all that apply as appropriate.

- ☐ psychoanalysis
- ☐ behavior
- ☐ cognitive behavior
- ☐ dialectical behavior
- ☐ Adlerian
- ☐ client or person-centered
- ☐ contemplative
- ☐ existential
- ☐ feminist
- ☐ family
- ☐ gestalt
- ☐ integrative
- ☐ interpersonal
- ☐ multicultural
- ☐ positive
- ☐ postmodern (narrative, solution-focused, collaborative language)
- ☐ rational emotive behavioral
- ☐ reality oriented
- ☐ no specific theoretical orientation

Other (please specify)

5. Do or did you work with this population full time (defined as 40 hours/week)?

◯ Yes ◯ No

6. If you responded NO, what percentage of your workload is devoted to work with this population (including direct services, consultation, planning, and documentation)?

7. If you do not work with this population full time, in what OTHER areas do/did you work (please check ALL that apply)?

☐ Medical Pediatrics ☐ Psychiatric ☐ Forensic
☐ General Medical ☐ Special Education
☐ Rehabilitation ☐ Private Practice
☐ Other (please specify)

8. In your work with individuals with eating disorders, please indicate all **age ranges** that you work(ed) with.

☐ 5-12 ☐ 18-30 ☐ 41-50
☐ 13-17 ☐ 31-40 ☐ 51+

9. In consideration of the age ranges you indicated in the previous question, with which age range do or did you work(ed) with most frequently?

◯ 5-12 ◯ 18-30 ◯ 41-50
◯ 13-17 ◯ 31-40 ◯ 51+

10. On average, in an individual or group session with individuals with eating disorders, what percentage of time do/did you spend in discussion and/or verbal processing with clients during music therapy?

◯ 0-10% ◯ 26-50% ◯ 76-100%
◯ 11-25% ◯ 51-75%

Music Therapy with Individuals with Eating Disorders

Clinical Practice with Individuals with Eating Disorders

11. Do/did you provide group music therapy sessions?

◯ Yes ◯ No

Music Therapy with Individuals with Eating Disorders

Clinical Practice with Individuals with Eating Disorders

12. If you said yes, typically how many groups do/did you facilitate each week?

13. If you do/did provide group music therapy sessions, how large are/were your groups (Check all that apply)?

- [ ] 2-5
- [ ] 11-15
- [ ] 6-10
- [ ] 16+

14. When you do/did a group session, do/did you co-lead with another professional?

- ◯ Yes
- ◯ No

15. If you co-lead, with whom do/did you co-lead the group session? (Check all that apply.)

- [ ] psychologist
- [ ] psychiatrist
- [ ] nurse
- [ ] counselor
- [ ] behavioral specialist
- [ ] educator
- [ ] social worker
- [ ] doctor
- [ ] dietician
- [ ] Other (please specify)

16. Do/did you provide individual music therapy sessions?

- ◯ Yes
- ◯ No

17. If you said yes, typically how many individuals do/did you see each week?

18. How do/did you determine whether an individual participates in a group or individual session?

19. Do/did your patients participate in both individual and group music therapy sessions?

- ◯ Yes
- ◯ No

Music Therapy with Individuals with Eating Disorders

Goals of Music-based Interventions

20. From the following list of goals found in the music therapy literature, check all goals you typically target(ed) when working with individuals with eating disorders.

- ☐ to decrease food anxiety
- ☐ to decrease anxiety
- ☐ to increase emotional expression
- ☐ to increase relaxation
- ☐ to improve coping skills
- ☐ to increase self expression
- ☐ to improve emotion regulation
- ☐ to improve interpersonal skills
- ☐ to decrease need for perfectionism
- ☐ to address low self-esteem
- ☐ to increase self awareness
- ☐ to decrease life-threatening behavior
- ☐ to reduce behaviors that interfere with treatment
- ☐ Other (please specify **additional** goal areas as appropriate to your clinical practice)

Please label as: goal 1, goal 2, goal 3

7

21. Rank the following goal areas from most frequently addressed (1) to least frequently addressed (16). Indicate N/A if you do/did not address an individual goal area and adjust ranking accordingly. Include YOUR goals from the previous question in the ranking and adjust the ranking accordingly.

to decrease food anxiety	☐ N/A
to decrease anxiety	☐ N/A
to increase emotional expression	☐ N/A
to increase relaxation	☐ N/A
to improve coping skills	☐ N/A
to increase self expression	☐ N/A
to improve emotion regulation	☐ N/A
to improve interpersonal skills	☐ N/A
to decrease need for perfectionism	☐ N/A
to address low self-esteem	☐ N/A
to increase self awareness	☐ N/A
to decrease life-threatening behavior	☐ N/A
to reduce behaviors that interfere with treatment	☐ N/A
(other goal 1-as listed in previous question)	☐ N/A
(other goal 2-as listed in previous question)	☐ N/A
(other goal 3-as listed in previous question)	☐ N/A

22. Please describe how you choose/chose what goals to address in group sessions.

23. Please describe how you choose/chose what goals to address in individual sessions.

Music Therapy with Individuals with Eating Disorders

Music-based Interventions to Address Goal Areas

24. What percentage of your interventions use recorded versus live music?

Recorded

Live

25. What music therapy intervention do/did you use to address specific goal areas? (Check all that apply.)

	music relaxation/imagery	lyric analysis	structured instrument play	improvisatory instrument play	songwriting	movement to music	other
food anxiety	☐	☐	☐	☐	☐	☐	☐
anxiety	☐	☐	☐	☐	☐	☐	☐
emotional expression	☐	☐	☐	☐	☐	☐	☐
relaxation	☐	☐	☐	☐	☐	☐	☐
coping skills	☐	☐	☐	☐	☐	☐	☐
self expression	☐	☐	☐	☐	☐	☐	☐
emotion regulation	☐	☐	☐	☐	☐	☐	☐
interpersonal skills	☐	☐	☐	☐	☐	☐	☐
need for perfectionism	☐	☐	☐	☐	☐	☐	☐
self-esteem	☐	☐	☐	☐	☐	☐	☐
self awareness	☐	☐	☐	☐	☐	☐	☐
life-threatening behavior	☐	☐	☐	☐	☐	☐	☐
behaviors that interfere with treatment	☐	☐	☐	☐	☐	☐	☐
your added goal 1	☐	☐	☐	☐	☐	☐	☐
your added goal 2	☐	☐	☐	☐	☐	☐	☐
your added goal 3	☐	☐	☐	☐	☐	☐	☐

26. If you indicated "other" in the previous question, please describe those music-based interventions.

27. Please describe **how** you choose/chose what music-based intervention(s) to use for a particular goal.

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Music Therapy with Individuals with Eating Disorders

Therapeutic Function of Music in Music-based Interventions with Individuals with Eating Disorders

Pick the goal that you address with the highest prevalence when working with individuals with eating disorders.

28. Please state your selected goal. For example, to increase emotional expression.

29. Please label a music therapy intervention, i.e., songwriting, and briefly describe how you facilitate this to address the goal you stated at the top of this page. Include up to two different techniques as appropriate.

Intervention 1

Description:

Intervention 2

Description:

As you know, the elements of music typically include: timbre, rhythm, tempo, pitch, melody, dynamics, lyrics, form, harmony, style, and texture.

These elements are altered within a music-based intervention to impact various client responses (Hanson-Abromeit, 2015). Dr. Hanson-Abromeit has created a Therapeutic Function of Music Worksheet that serves as a template for clinicians to combine their clinical wisdom and support from relevant research to clarify and make deliberate decisions about the purpose of each music element with a description of how the modified element supports achieving the intended treatment outcome in the therapeutic context.

Hanson-Abromeit, D. (2015). A conceptual methodology to define the therapeutic function of music. *Music Therapy Perspectives, 33*, 25-38.

Music Therapy with Individuals with Eating Disorders

Adaptation of Music Elements in your Clinical Practice

Based on the **goal** and **one music-based intervention** that you listed above, indicate which elements of music in order of importance do you alter, how, and why. For example:

Goal: to increase emotional expression (verbally articulated)
Technique: song writing

Description of the Intervention: In group sessions, we work together to create lyrics of a song that express our feelings about leaving the eating disorder clinic and going home where they will need to implement coping strategies independently. We work together to create the lyrics and then accompany the song with harmonic and unpitched instruments.

Select elements of music (see drop down menu on following page): Timbre

Clinical rationale:
I provide a variety of timbres of instruments so that client's can choose what to accompany with so as to provide an opportunity for choice. I also provide a variety as certain timbres provide an auditory experience that inherently represent differing emotions.

Literature support (in generalities or if you know of specific citations):
Music therapist, Kalani Das in his book *The way of music: Creating sound connections in music therapy* (2011) discusses how different timbral qualities are associated with different emotions. Eerola, Ferrer, and Alluri (2011) conducted three experiments focused on musical perception and found that specific instrument sounds elicit differing affective expressions.

OR

I think Kalani talks about how different timbre qualities are associated with different emotions. I also remember reading an article about music perception that found that specific instrument sounds elicit different emotions.

30. Indicate the selected element of music

31. Clinical Rationale

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32. Literature Support (generalities or specific citations and information if available)

33. Indicate the selected element of music

34. Clinical Rationale

35. Literature Support

36. Indicate the selected element of music

37. Clinical Rationale

38. Literature Support (generalities or specific citations and information if available)